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# THE AMERICAN School Board Journal

A PERIODICAL OF SCHOOL ADMINISTRATION

May  
1912



C.O. Longabaugh

NEW YORK  
CHICAGO

WILLIAM GEORGE BRUCE  
PUBLISHER

MILWAUKEE,  
WIS.



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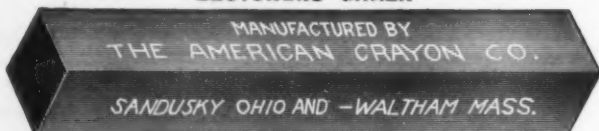
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all kinds of blackboards



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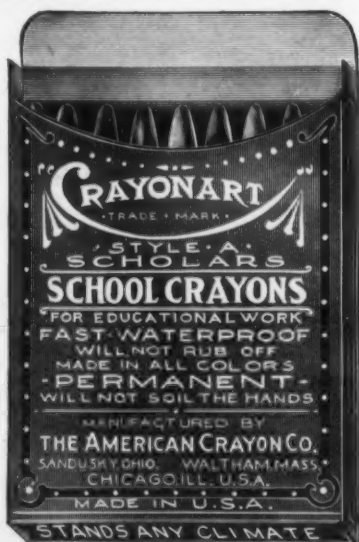
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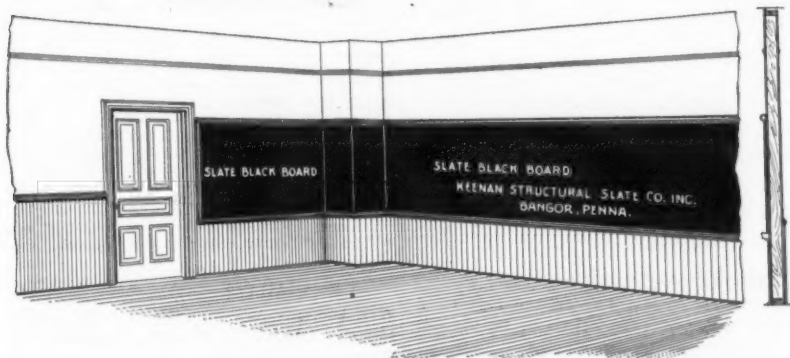
that had previously served in an **old school building**. How many composition boards could thus have been used again?

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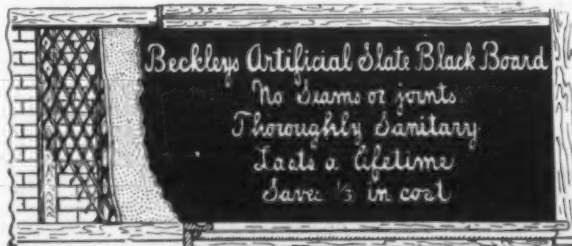
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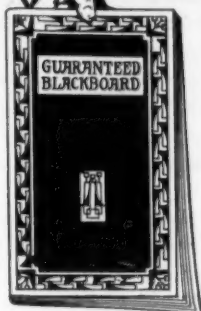
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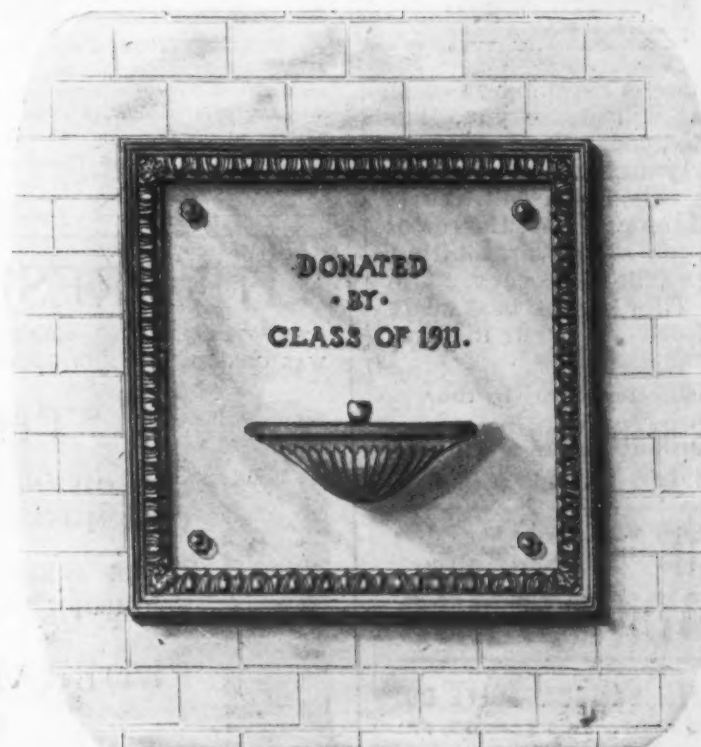
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## THE AMERICAN School Board Journal

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FRANK M. BRUCE, Business Manager WM. C. BRUCE, Assistant Editor  
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Vol. 44

MAY, 1912

No. 5

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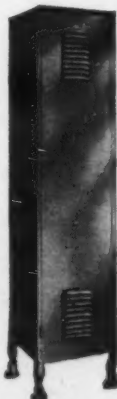
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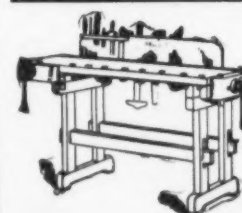
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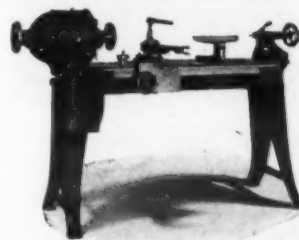


Illustration Shows Our Harvard Drawing Table

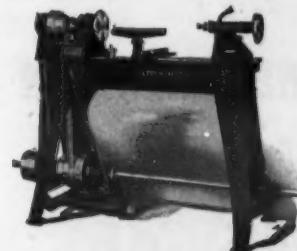
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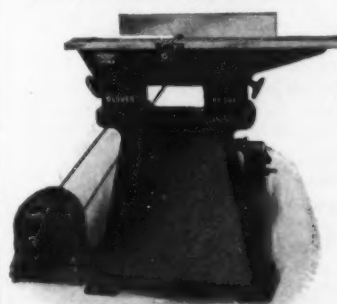
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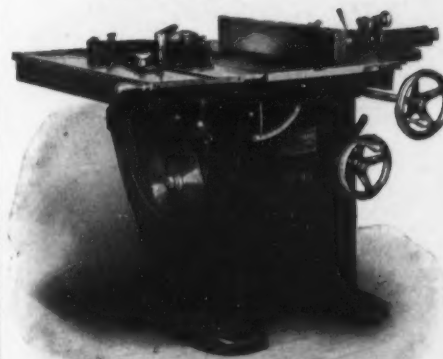


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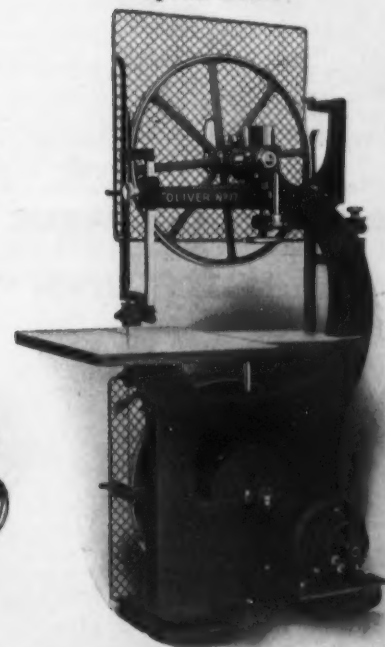


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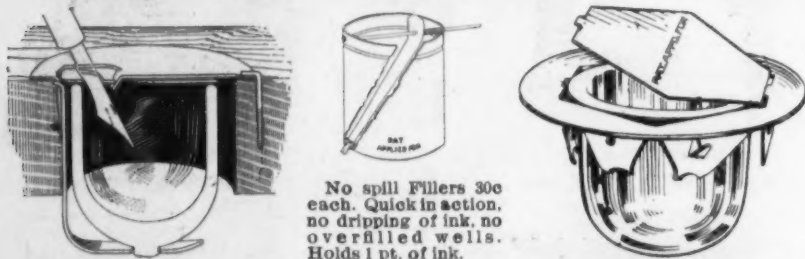
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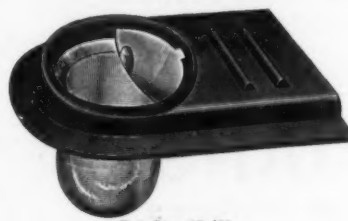
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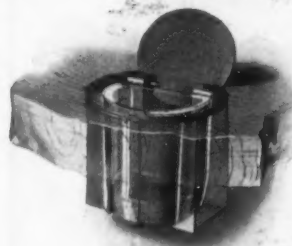
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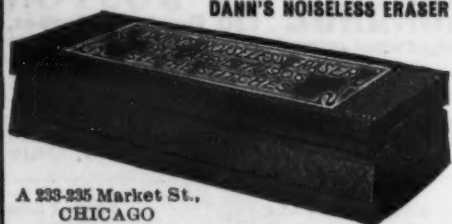
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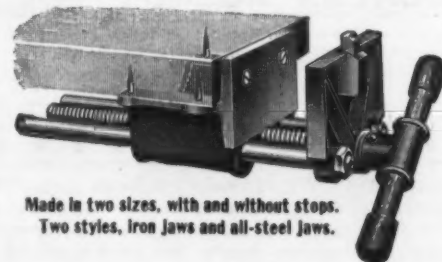
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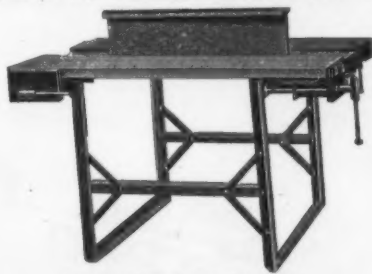


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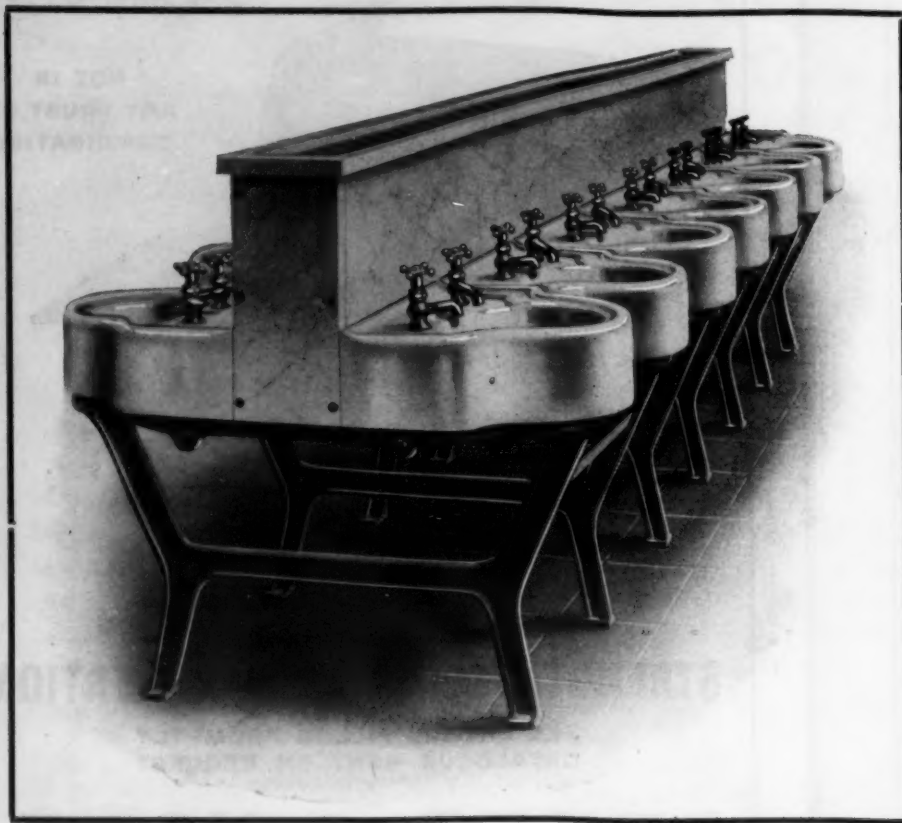
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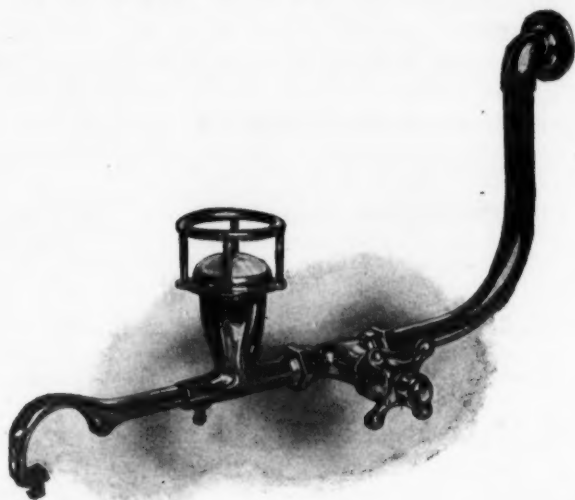
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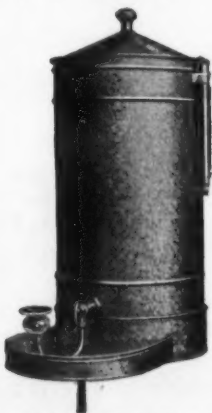
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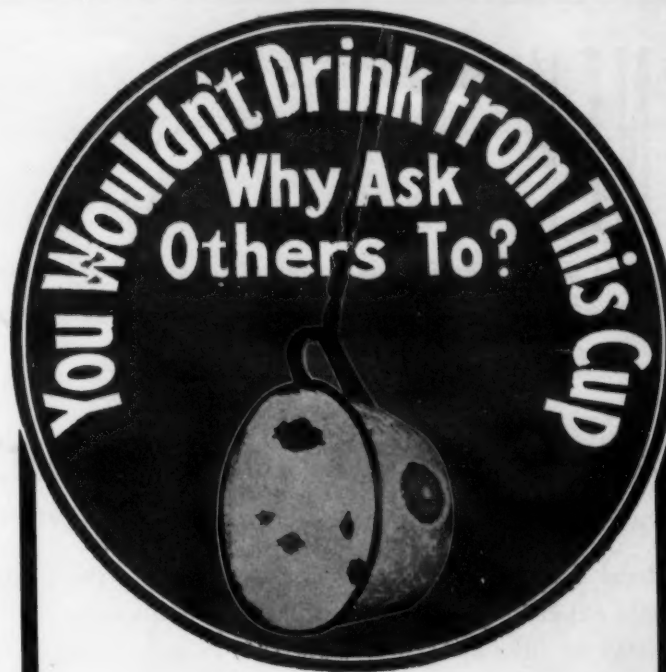
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Founded March 1891 by WILLIAM GEORGE BRUCE

VOL. XLIV, No. 5

MILWAUKEE—New York—Chicago, MAY, 1912

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# The Standard Test Applied



By DON C. BLISS, Superintendent of Schools, Elmira, N. Y.

Unless all signs fail education is entering upon a period during which present ideals will be radically modified or wholly changed. Herefore, schoolmen have accepted the mere presence of inherited methods in the educational world as sufficient reason for their continued use and little effort has been made to determine whether their results have justified this acceptance. The superintendents of two neighboring cities may proceed along totally different lines. Each supports his choice by a plausible statement of theory, each has his followers in the world of schoolmen, but neither tries to accumulate from the actual work done by the children an array of facts which would prove beyond question the economic value of his methods. Why argue whether it is better to teach spelling by the syllabic or non-syllabic method, when no better proof than the opinion of the respective advocates is brought forward to support the argument? The results of a few well-planned tests would carry more weight with the business man and the parent than all the psychology in the world. Long since, practical men began to apply to their criticism of the schools the principle of the relation between expenditure and results which they employed in their own business. They found too great a discrepancy between the time and money used in education and the results to the pupils, and they began to insist that the business system of checking results to eliminate waste can and ought to be employed in education.

A great difficulty in applying this principle to the conduct of the schools has been the lack of adequate standards of measurement. One school system might be thought better than another. The only proof lay in a general atmosphere of prosperity and activity, and the growing cost of maintenance. The taxpayer had no real evidence of an adequate return for the constant demand for greater investment on his part.

The schools are beginning to realize that the rightful demand of the public for something in the nature of a balance sheet must be met, and a number of men are at present engaged in original investigations which will result in establishing some tentative standards of efficiency. Arithmetic, spelling, composition, and penmanship, are the subjects usually selected for this purpose. Thus far the investigation has necessarily been confined to the work of determining a standard, so that little has yet been accomplished in applying the standard to actual school conditions.

No standard has practical value unless it is of such a character that the busy superintendent or principal can use it without expending an unreasonable amount of time. If the use of a standard for measuring efficiency results in such progress as to make this investment of time profitable, then he cannot afford to ignore it. The matter resolves itself into a question of the most profitable investment of the available time.

As a result of Dr. Thorndike's article in The Teachers' College Record for March, 1910, the writer has made a series of careful experiments in the subject of penmanship to determine the effect of applying the standard test. This was done with the idea that progress would result from telling a class their present standard and

encouraging them to make a definite effort to raise it. The consequence would be the elimination of aimless practice and the substitution of a definite purpose to reach a prescribed standard. Such testing should not be confused with the formal examinations so often found in the schools. The purpose was not to bring about a sudden burst of effort and thus to reach a high, but temporary, rank. The sole idea was to fix the present normal standard of attainment and then to use this as the starting point from which to measure the class progress in writing.

This has been done with several classes through a five-month period and the results are interesting.

The attempt to use Dr. Thorndike's scale shows that a coarser one would be just as satisfactory and would greatly simplify the rating of the papers. It is also apparent that there would be a decided advantage in fixing the standards from local specimens as the difference in style between the local writing and that in the Thorndike scale makes the operation of rating too slow. It is wholly immaterial in measuring class improvement whether the scale is perfect or not. The essential thing is that it be kept constant. When the experiment was begun in September the classes were asked to copy three or four sentences from the blackboard as well as they could. These papers were then rated and each pupil was told what rating his paper received. A month later a similar test was made and each pupil was given his rating. The same method was followed at the end of each subsequent month. In this way a monthly record of the actual progress of the pupil was established. It shows not his ability to tell how to do but what he can actually do. It is a measure of his capacity, not of the amount of theory that he chances to remember.

The rating of the papers is simple. The standards run from one to twenty and each paper is given the rating of the standard with which it agrees. The sum of these ratings divided by the number of pupils gives the class rating.

The following table shows the constant improvement of the classes:

Grade	Sept.	Oct.	Nov.	Dec.	Jan.
VIII	11.7	12.2	12.3	13	14.2
VII	11.04	12.3	12.7	13.1	14.2
IV	11.8				13.
V	8.7				13.5

Lack of time prevented the rating of grades five and six each month. The actual progress in every case is most gratifying: Grade VIII, starting with a mark of 58.5 per cent reaches 71 per cent in the five months. Grade VII starts with 57 per cent and reaches the same point, 71 per cent.

Obviously these class averages will be modified by the characteristics of the pupils who make up the class. The average for the eighth grade, given above, is lowered by the fact that a number of poor writers happen to be members of it.

A comparison of the September and January rating of the individual pupils shows that in almost every instance a determined effort was made to improve the quality of the writing.

Grade VIII		
Pupils No.	Sept. Rating	Jan. Rating
1	12	14
2	11	14
3	13	16
4	11	15
5	12	15
6	12	16
7	12	13
8	11	14
9	14	15
10	11	15
11	14	14
12	14	14
13	13	14
14	13	15
15	9	13
16	9	13
17	12	16
18	15	15
19	11	14
20	12	14
21	11	12
22	13	14
23	11	15
24	11	14
25	12	15
26	12	13
27	11	14
28	11	14
333		400

Grade VII		
Pupils No.	Sept. Rating	Jan. Rating
1	13	15
2	13	13
3	11	16
4	9	14
5	12	16
6	14	17
7	10	16
8	11	16
9	11	14
10	9	13
11	11	14
12	11	14
13	11	13
14	12	13
15	11	14
16	12	15
17	11	14
18	9	14
19	11	14
20	11	14
223		289

Such tables as the above afford the superintendent exact knowledge of the degree of efficiency with which writing is taught in every room; for there can be no question but that efficient teaching and class progress are synonymous terms. The tables are of equal value to the conscientious teacher as they show her just what pupils are making progress and what pupils are loafing. In a word, for vague opinion is substituted the principle of accurate knowledge which guides a business man in the conduct of his affairs.

Some may object to the rating system fearing that the estimate of the various papers may be unduly influenced by the personal bias of the examiner. This would probably be true if the papers were rated in the old manner, giving each the mark in per cent to which its appearance seemed to entitle it. Rating in accordance with a fixed standard is a totally different process. Instead of the question "What per cent should be given this paper?" the inspector asks, "Which of these standards is it most like?" Actual experience warrants the assumption that the personal factor need not be considered. Sets of papers rated by two experts working in absolute independence of each other show a maximum variation of one-tenth of one point. I am convinced if the rating were done by one person the variation would never be worth considering.

We often hear people objecting to tests because certain elements of successful teaching cannot be measured with mathematical exactness. It is certain that we cannot measure the influence exerted by a real teacher upon the character of his pupils, but there is no inconsistency between character development and efficiency in subject matter. Character is just as much a part of education as knowledge of arithmetic. At the same time no matter how honest he may be the office has no place for a boy who is hopelessly incompetent. The present demand upon the schools is for graduates who can do something well. In the future we shall place no less emphasis upon character

(Concluded on Page 46)



# The United States Bureau of Education

By DR. HARLAN UPDEGRAFF, Washington, D. C.

## I.

Notwithstanding the widened scope and increased efficiency of the Bureau of Education during the past few years it does not as yet perform all the functions it should. The organic act, passed in 1867, defines its purpose and duties as those "of collecting such statistics and facts as will show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country."

It is evident that the fault lies not in the wording of the organic act. Wherein, then, is it to be found? The answer is "in the appropriations made by the Congress." With a legal scope sufficiently wide to establish a department and give education a seat in the President's cabinet, the bureau has been compelled to eke out its existence upon funds insufficient to support a single section of a division of some other bureaus. The lowest appropriation, that for the fiscal year ended June 30, 1870, was \$5,400. During the '70s the amounts averaged \$27,000 annually. In 1881 the \$50,000 mark was passed; fifteen years later \$60,000 was expended, while it was not until 1910 that as much as \$70,000 was granted. For the present fiscal year the appropriation for the bureau proper totals \$79,800.\*

Compare with this amount the expenses of other bureaus of the government whose work most closely resembles that of the Bureau of Education; Geological Survey, \$1,225,520; Bureau of Mines, \$459,000; Smithsonian Institute, \$342,000; Bureau of Fisheries, \$884,670; Bureau of Corporations, \$254,200; Bureau of Labor, \$167,090; Bureau of Statistics, \$77,650; Bureau of Animal Industry (exclusive of meat inspection, \$3,000,000), \$1,604,750; Bureau of Plant Industry, \$1,772,606; Bureau of Entomology, \$334,970; Biological Survey, \$119,700; Office of Public Roads, \$115,000. The fields of work of these bureaus are not more important to the permanent welfare of the country than the education of its citizens.

### Inadequacy of Appropriations.

The form in which the appropriations have been granted has also prevented the proper development of the bureau. The appropriations for the fiscal year, 1911, are typical. Nine-tenths of the \$72,000 appropriated was for salaries fixed by statute and at amounts so small that trained and experienced men and women competent to fill positions as specialists are not attracted to government service. The commissioner is powerless to offer as much money as local public and private school systems of the better class. Neither have any "lump sum" appropriations, from which salaries could be paid, been given the bureau until the present year. It might be explained in passing that "lump sum" appropriations are those in which the purpose of the appropriation is fixed by the Congress, leaving to the executive branch of the government the distribution of the total amount among the various objects necessary to the accomplishment of those purposes. Under such

a provision, the chief of a bureau is enabled to employ within the limits of the total appropriation just as many persons and at such salaries as the head of his department may approve. The wonderful development of the Department of Agriculture during the past fifteen or twenty years has been due in no small part to the wide discretion given its officers through lump sum appropriations.

Another characteristic of the bureau's appropriations has its bearing at this point. Under the law today no person connected with the bureau may have his expenses paid for going to any place to speak to a body of citizens or teachers, or to advise with them regarding the solution of any problem. His expenses may be paid, however, for going to the place in question to collect educational data, which presumably will be of value to other communities when printed or otherwise distributed.

### Congressional Procedure a Hindrance.

If, during the past forty years, the Commissioner of Education had been granted lump sum appropriations from which he could have paid salaries fairly commensurate with those paid by local public and private agencies throughout the United States, and had it been possible for him to set aside proper amounts for traveling expenses, the bureau would have made a far greater impress upon educational policy and practice. In consequence of the higher appreciation which would have resulted, it is also quite probable that the Congress would have increased its appropriations from year to year until their magnitude would have become more nearly commensurate with the high regard in which all Americans hold their public schools.

However there is an underlying cause for this situation in the business procedure of each of the two Houses of Congress. Under this procedure, the estimates for some departments are acted upon by their friends at court, while the estimates for other departments are passed on by a tribunal, whose main object is economy. All appropriation bills for the Department of Agriculture are prepared in the House Committee on Agriculture and are reviewed in the Senate by the Committee on Agriculture and Forestry. This same practice also holds with the appropriations for the Diplomatic Service, the Military Service, the Naval Service, and the Postal Service. On the other hand the appropriations for the other branches of the executive departments are prepared by the Committee on Appropriations of the House and are referred in the Senate to its committee of like name. Quite naturally, the attitude of these Committees on Appropriations toward the estimates submitted by their respective branches of the executive department is distinctly different from that shown by the committees which recommend the appropriations for a single department or bureau. Members of the latter class of committees have their attention centered on one particular set of governmental activities, which they hold in growing appreciation as their knowledge of the work increases. On the other hand, members of the Committees on Appropriations have their attention divided among several departments and independent offices and commissions, all of which are more or less desirous of increased funds. Strong attachment to the work of any branch of the government service is not fostered by such a condition. Moreover, the numerous insistent demands that come upon them develop a controlling idea in the minds of these Appropriations Committees—not the great good that may come to the people through any branch of the service, but rather the desirability of cutting appropria-

tions to the lowest possible limit in order that the party in power will not be held accountable for large expenditures. In brief, all the appropriations for the Department of Agriculture, and the principal appropriations for the War, Navy, and Postoffice Departments, are in the hands of their friends, while those of the remaining government offices must come before a tribunal, the chief aim of which is to keep the total appropriations, including those framed by the special committees, within certain fixed limits. It follows from this that the liberal appropriations recommended by the special committees have a tendency to lower the appropriations for the other departments which are drawn directly by the Appropriations Committees. Had the estimates of the Commissioner of Education during the past forty years been referred in the House to the Committee on Education and in the Senate to the Committee on Education and Labor there would undoubtedly be today a far different story to tell. If such a reform in the procedure of the Houses could be carried out today, an increased participation of the national government in the educational development of the country would probably result.

## II.

But what has the bureau done under such limitations? This question may best be answered by speaking first of the period which preceded the administration of Commissioner Brown, who served from 1906 to 1911.

Small appropriations limited the staff to fifty or less. Inadequate provision for traveling expenses compelled the staff of the bureau to gather information from the printed page instead of at first hand, and prevented their going out into the field to assist in the solution of practical problems. Moreover, low statutory salaries had its effect on the personnel. The net result of the whole matter was that the number of persons who directly influenced the educational development of the country was confined almost to the commissioner alone. The Bureau of Education became practically a recording office. Figures relating to the attendance, personnel, payments, and expenses of most types of schools gathered annually in accordance with more or less fixed forms. They were published in the annual reports as forwarded by those in charge of the schools. The history of local educational development in earlier periods of our history was written by members of the staff and others, and published. The reviews of contemporary progress in this and foreign countries were based for the most part upon printed reports, or were written outside the office by those who were more intimately acquainted with the facts.

Necessarily, the reports appeared twelve months or more after the close of the year which they covered. While they contained much valuable information, they affected the development of educational theory and practice only indirectly as the data was transmuted by students or educational leaders in the working out of their own problems. The rank and file of the teaching profession were influenced but little. In fact, many teachers were scarcely aware of the existence of the national education office. Thousands of them did not know the name of the commissioner and had never so much as seen a copy of the bureau's reports or other publications.

### Recent Reforms.

A new era began with the accession of Commissioner Brown. The annual reports were reduced in size by practically one-half, mainly by dropping out historical material, and the time of their issuance was advanced by almost one year. A new series of bulletins was begun, many of

\*These figures do not include the appropriation for the education and support of the natives of Alaska, amounting for this year to \$200,000, nor for the introduction of domestic reindeer into Alaska, amounting to \$12,000. They also exclude the allotment of the Department of the Interior appropriation for printing, amounting to \$50,000, as well as that for equipment, supplies, and other purposes, which amounts to about \$4,000. The bureaus of all departments share in the departmental appropriation in similar ways.



which were intended to minister to the immediate wants of the people. The principle back of it all was to make the office formative in character, although the previous work of recording contemporary educational history was not diminished. At that time Commissioner Brown said "In general, then, the purpose of the bureau is to provide an active center of educational influence and information for the whole country, and to perform such administrative duties of an educational character as may from time to time be assigned to it."\*

The actual turning point came, however, with the establishment of a "field force" during the year 1909-10. An increase in the appropriation for collecting statistics secured for the year previous had made it possible not only to buy additional manuscripts for bulletins upon timely topics, but also to defray the traveling expenses of persons other than the commissioner. Two men, the Specialist in Land Grant College Statistics and the Specialist in School Administration (the latter a new position created upon the statutory salary of the Collector and Compiler of Statistics) were designated as the beginning of the field force and a new division was created to assist the latter in the performance of his field work. Within the next year the establishment by Congress of the statutory position of Specialist in Higher Education provided another field man, and later a new division was created for his assistance. The following year at the last session of Congress, the first "lump sum" appropriation for the work of the bureau was granted. It provided \$6,000 for the investigation of rural education, industrial education, and school hygiene. Under the administration of Commissioner Claxton two additional field men have been provided upon this foundation, namely, an Assistant in Rural Education, and a Specialist in School Hygiene and Sanitation. A new division has likewise been created for each subject. So, at present, the field force consists of five specialists who spend from one-fourth to one-half of their time in the field.

#### Constitution of the Bureau.

The Bureau of Education is now composed of nine divisions, with a total staff, including the commissioner and the chief clerk, of fifty-nine. Through letters all divisions furnish constantly information upon many questions; all but one participate in the preparation of the annual report. The Division of Higher Education is engaged at present chiefly in making a study of standards of higher educational institutions. It also has charge of the supervision of funds appropriated by Congress for the Colleges of Agriculture and Mechanic Arts. The Division of Rural Education deals principally with those features of rural schools which are embraced under the heads of instruction and supervision of instruction. The field of the Division of School Administration is those subjects which are ordinarily embraced in State laws and regulations of local school boards. It also has charge of the collection and dissemination of the statistics of State and City public school systems. It has been one of the factors in the introduction of uniform methods of recording and reporting educational and fiscal data of State and City school systems, including uniform methods of accounting, and in the establishment of the standards governing interstate recognition of teachers' certificates. It issues also State and City circulars upon live administrative questions. The Division of School Hygiene and Sanitation is interested particularly in the construction and character of schoolhouses, as well as in the regulations and practices pertaining to the promotion of the physical well-being of pupils. The Statistical

Division collects and publishes the statistics of secondary schools, schools for the industries, and other special types of schools. The Editorial Division performs the duties in connection with the publications of the bureau which are implied in its title. In addition it issues from time to time circulars of information relating to live educational topics. The foreign work of the office is done under this division. The Library Division assists the readers who come to the bureau for study, in addition to the usual work connected with a library, prepares bibliographies upon a wide range of educational subjects, and issues a monthly record of current educational publications. The Correspondence Division has charge of the filing and the answering of such correspondence as does not require the attention of the other divisions. The Alaska Division has charge of the education of the natives of Alaska and of the reindeer industry established for them.

#### III.

Are there needs which the bureau with its present organization cannot meet? This question seems almost absurd. The United States contains five hundred thousand school teachers, at least half of whom are seeking to improve themselves; twenty hundred school boards, and as many superintendents in cities and towns of 2,500 and more, at least half of whom are seeking the best light upon administrative questions; not to mention the thousands of school boards in rural districts who need assistance possibly more than any other class of school officers; four thousand county superintendents, at least half of whom wish to know the best ways of conducting rural schools, and forty-eight State superintendents who wish to work out their State problems in the light of the best experience of all the States. Over against these numbers the Bureau of Education has three field men, with a combined office force of seven clerks, who are in a position to affect directly the work of the public schools.

Consider this country's six hundred institutions of college or university grade, with 27,000 teachers; its forty-eight colleges of agriculture and mechanic arts receiving aid, with 2,500 teachers; its 196 public and 68 private normal schools, with 6,000 instructors. Against these figures contrast the fact that the Bureau of Education has two field men, with three clerks, who can deal at first hand with the problems of the teachers and governing boards of these institutions. What the bureau can do for the educational interests of the country under its present limitations is not so much as a drop in the bucket in comparison with what it might do if conditions were ideal.

The needs of all these school officers and teachers are multiplied by our form of govern-

ment and intensified by our strong national spirit. Our system of local government fosters and protects initiative. Principles and methods of education practice have had their origin for the most part in local situations or are copied from other localities. The chief organizing agencies have been, not the State, but the universities, colleges, and normal schools, which individually influence the teachers' preparation. Certain agencies for the improvement of teachers in service have served likewise to mold educational procedure, but again through the mediation of the teacher. Many of these agencies are local, as the superintendents' study class; others are partly local and partly foreign, as the normal institute; while others, as the educational press, are entirely foreign. But none of these has authority in the premises. The shaping of the educational policy resides in the local school boards, superintendents and teachers.

#### National Assistance Necessary.

On the other hand each progressive community wants the best school its means afford, and if possible, the best in the entire nation. It desires to profit by the experiences of all other schools. State lines do not include all communities of similar educational conditions nor exclude all others with different problems in this field to solve. If each of the States had a large staff of educational experts to advise local boards, officers, and teachers, it would still be necessary for each set of these officers to visit frequently the schools of other States in order to bring to bear upon the local problems in their own States the results of the best experience. And even then it would be necessary to the best good of the schools in all of the States for the staff of the National Bureau to go to all the States, spreading the best principles of theory and practice.

The concomitance of local initiative and of national unity in education makes necessary a fully equipped and adequately supported agency, national in scope, for carrying the best to all parts of the country, and for so co-ordinating educational efforts as to bring about the best results with the least waste. States may establish such agencies for their own benefit, but from the standpoint of economy in money and promptness, facility and efficiency in action, it would be wise for the sovereign people to assign to the national government the maintenance of a general clearing house for educational improvement, whose staff could serve as an advisory council for the assistance of the State and local officers and teachers.

Under these conditions the national educational office can best satisfy the needs of all the people in two principal ways: First, it should record the facts relating to education here and abroad, and disseminate these facts in its publications and its letters. In performing these functions it would act merely as an intelligent, but passive observer of events. To do this in such a way as will place at the command of any teacher or school officer what he should know in order to act upon the best information pertaining to even the more common problems with which he is confronted, requires facilities many-fold greater than those now provided in the Bureau of Education.

#### Formative Influences of Bureau.

Secondly, in addition to recording and publishing the facts regarding educational conditions and progress for the benefit of all the people, the national education office should exercise direct formative influences on the development of the State and local public school systems in at least three principal directions:

1. It should assist State and local school boards, superintendents, and other school officers, in educational campaigns and in the solution of difficult problems which ordinarily do not come into public notice.



ELMER ELLSWORTH BROWN  
Former U. S. Commissioner of Education (1906-1911).

\*The Work of the Bureau of Education, in the Annual Report of the Commissioner of Education, 1907, p. 28.



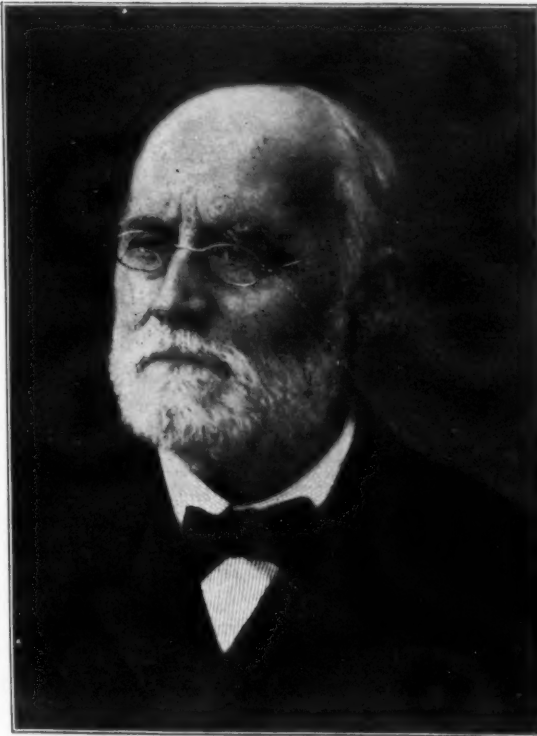
2. It should investigate and report the results of important educational movements in certain localities or sections of the country, setting forth conclusions as to the advisability of the adoption of like practices in other localities, as well as indicating the best methods of publishing them.

3. It should carry on experiments in various phases of educational procedure either independently or in co-operation with States or with local school districts.

It seems perfectly clear that the practicability of the first of these phases of formative activity is sustained by abundant evidence in similar fields of activity and by work which public and private educational agencies have actually done. As for example, take the work of the Young Men's Christian Association and of the Young Women's Christian Association through their national and state associations in assisting local organizations, both in special endeavors and in the working out of the problems that arise in the routine work. The relative influence of national and State officers in this field would doubtless control in education as well. No matter how strong a State education office may be made by a State legislature, the national office if properly supported would in most States exercise more potent influence because of its prestige and the wider range of its experience.

The work of the General and Southern Education Boards in the South, both independently and in co-operation with the Department of Agriculture, is another example of the wholesome and inspiring influence of national agencies in the development of the life of the people. In the past decade these two institutions have caused a more rapid educational development in the South than has taken place in any other part of our country. If the Bureau of Education had been granted funds comparable to the amounts expended by the General Education Board and by the Department of Agriculture upon educational projects alone, the remaining portion of our country would have received benefit almost, if not quite, as great. Finally, the work of the Department of Agriculture in purely agricultural matters stands out as a great example of what the national government may do to promote the welfare of the people through assisting them in their private endeavors.

Secondly, as a further step in the development of the Bureau of Education's formative influence, its experts should be enabled to investigate local practice, and to correlate results obtained with those of experience elsewhere. Educational advancement in this country is sporadic. A certain city public school system, university, or normal school conceives a new idea and proves its worth for the whole country. Teachers in the same line of endeavor learn of the success in this or that particular place, visit it, and copy after it in the best way they may. This individual or local initiative is one of the best features of our educational systems and should be preserved. There is great need, however, for careful investigation of new developments by national agencies in order that the light of all previous endeavors in similar lines will be thrown upon each particular project involved and its exact contribution to progress determined. Such a study would prove of great benefit to school officers and teachers in all other places, (a) by bringing the new plan to their attention, (b) by assisting them in deciding whether a similar plan would better their educational system, and (c) by helping them to put it into operation if they decide to incorporate it in their system. In this last step the expert advice of a specialist from the bureau, given after a personal study of local conditions, would be of much greater assistance than the printed bulletin. Furthermore, the expenditure of money in visiting the place where the plan was



WM. T. HARRIS  
Fourth U. S. Commissioner of Education 1889-1906.

already in operation, and likewise in working out the best adaptation of the original plan to the requirements of other places, would be greatly reduced. The additional appropriation for such work upon the part of the national government would be repaid many times over in the saving of local taxes.

As an example, take the public school system of Gary, Indiana, which has been heralded by some as the new plan after which all public school systems of the future will be molded. It involves the lengthening of the school day to 6 1-2 hours. It provides for Saturday classes and vacation schools. Provision is made also for the use of the building and of the parks and playgrounds by the public. Without doubt there are many features of the Gary plan that would be of very great benefit to public school systems in other cities. It is asserted for this system that the boys and girls are kept off the streets, that their enjoyment of school life is greatly increased, that their health is much improved, that a more practical curriculum is provided, and that all these good results may be accomplished without increasing the cost per pupil. A national agency is best fitted to study and to report upon the results that have been accomplished in this school system, to make recommendations as to the extent to which the new system can be used elsewhere, and to assist in its wider introduction.

#### Educational Investigations.

The third field in which the Bureau of Education can function in a constructive way, as indicated above, pertains to the scientific measurements of educational efficiency. The public school curriculum is attacked from many sides. It is said that boys and girls are not prepared for actual life; that they are deficient in education in the common branches; that too much time is spent upon elementary and secondary subjects. More specifically, also, it is frequently asserted that one given school does not do as good work as a certain other school. Thus far, our decision upon these and similar questions has been merely a matter of individual opinion. Within the past ten years the study of education has been brought to the point where many of these questions may be settled by scientific measurement. To be sure this is done in but few places; nevertheless it is done. Further experimentation in determining standards of measurements should be extended throughout

the entire country. The universities have been the most active agents in this work. In particular, Teachers' College of Columbia University, has been a leader. Their students, who are now teachers in other universities, colleges, normal schools, and in private, public, secondary, and elementary schools, have spread the knowledge of scientific measurement until now the country is ready for more nearly accurate judgment of educational questions through scientific procedure.

Other branches of the government, particularly the Department of Agriculture, furnish abundant precedents for investigations into the field of education by the national government, as the following list of appropriations for this fiscal year will show:

For investigation and experiments in animal husbandry .....	\$ 47,480
Co-operative expenses in animal feeding and breeding .....	50,000
Investigating the physiology of crop plants and for testing and breeding varieties thereof .....	33,015
For investigating the ginning, handling, grading, baling and wrapping of cotton and the establishment of standards for the different grades thereof..	32,350
For investigating the handling, grading, and transportation of grain and the fixing of definite grades thereof.....	57,080
To investigate and encourage the adoption of improved methods of farm management and farm practice.....	142,920
To investigate the food habits of North American birds and mammals in relation to agriculture, horticulture, and forestry, including experiments and demonstration .....	35,000
For inquiries in regard to the systems of road management throughout the United States, and for giving expert advice on this subject.....	20,000
For investigations of the best methods of road making and the best kind of road making materials and for furnishing expert advice on road building and maintenance.....	60,000

A list of appropriations for the investigation of educational subjects which are similar in form to those named above comes easily to the mind of any educator:

- To investigate the best system of school board administration in cities of various sizes.
- To conduct experiments with a view of determining at what ages the various school subjects may be learned in the least amount of time and with the best results.
- To investigate and to conduct experiments into the methods of giving the best preparation to those children who will enter industrial occupations.
- To investigate the effect of the compulsory education laws with the view of making such recommendations as will secure their enforcement with a minimum injury to parents and pupils.
- To conduct experiments for the determination of standards of ability in the various school subjects for each of the school grades and for each age of the pupil.
- To investigate the methods now in use in the investigation of the feeble-minded and to co-operate with State and local boards of education in the conduct of experiments in the education of the feeble-minded.
- To investigate the methods of teaching the various school subjects and to conduct experiments with the point in view of ascertaining the best methods.
- To conduct investigations to determine the best methods of caring for young children in the home, including their instruction, so as

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COLONGABAUGH

# The President of the School Board

By ROBERT KENDALL

"Yis—yohr to be the Superintindint of School, Mr. Kindill, ind eef you keep the notion out of yohr heed that you moost change ahl the tixtbooks the first moonth and turn the hahl seestem oopside down befahr you know the teachers' names, you cahn steek yohr furniture crates in the foornace ahnd sittle doon in peace weeth yohr family."

"But, Mr. MacDonald, do you want me to cross my fingers every time I open my mouth? That's a pretty high price for peace."

"Naw-naw-yeng mon; noot that—noot that. Harse sinse, industry, ahnd a college idecation ahr a treenety of virchuse—if the Gude One above endooed you weeth the farhst two and the byes een college did not neegliet to geeve you the last—you'll not fail. Joost noo yohr full of new fangled idees. There ahr gude ones—when you've screened them, understand. These beeg fellows who teach in the Univsities seet around in their libraries in the weenter and travel over Yarrup in the somer ahnd thin they wroite a book and lechure to yeng men how to run an American school. Noo, lit me till you, Mr. Kindill, Yarrup is Yarrup and Ahmerica is Ahmerica. They're differint. A few lahrds and a lot oov pesants make oop Yarrup. We're all lahrds in Ahmerica and we woon't stahnd fahr a pesant's edication. Some oov of it ahl roight but, screened, mind you."

"Well, Mr. MacDonald, don't you believe in industrial training? The very best educators are recommending that now as essential to our progress."

"Noo, I've said ahl I want to on that soobject fahr the prisint, but we'll talk moore oov it again, Mr. Kindill, we'll have plinty of toime."

"Well, there's nothing pressing about that matter just now, Mr. MacDonald, but I shall be glad to discuss it with you some time."

"Yis, we'll talk that oover some toime, but I have soom suggistions to ahfer you joost noo which ahr mahr empharant. The people here weel never knaw whether yohr a grideate oov a Nahrml school ahr a Univsity, boot they weel soon foind oot if you have common sinse. They may be wrang, boot the man who roons that bucket shop across the sthreet there makes money betting that mahr than half the people who trade weeth heem ahr wrang in their joodgment ahl the toime. Noo whither the pooblick ess ahr ees not wrang moost oov the toime, they pay the freight ahnd they weel do their own joodging een their own way."

"Noo—theers auld mon Breitenfeld—I was talking to heem wan evening in the pahrk whin the bahnd was geeving a concert. The auld mon nooged me weeth hees elbow ahnd says, 'Do you see the yeng mon playing the cahnet, Mr. MacDonald?'"

"Yis, I says, 'Mr. Breitenfeld, I see heem. That's yahr soon, August, I believe.'"

"Yis, yis," says Mr. Breitenfeld, "that's my Augy, that's my Augy—hees the bahnd Mr. MacDonald, hees the bahnd."

"Noo—Mr. Kindill, the toon ees full of Augys;

they all want you to see theer Augys and heer them play."

"Then, Mr. MacDonald, you would have me give more attention to the cultivation of the people than to the course of study and the conduct of the school?"

"Ach! they ixpiet you to know how to poomp fachts into yeng Augys cranium and poomp ideas oot, but that's incidental. That moost be doon to keep oop the family's reputation fahr intelligence. You know yahr promoting the pirints at the end of the year joost as mooch as yohr promoting the cheeldren; loike father loike soon ahnd the moother needs no commint."

"Noo, theer was Jerry Tanner. Jerry had a heed that was empahrveous to books boot he was as cliver a bahr tinder as ever meexed dhrinks. He proospered and stharterd a brewery ahnd then the cahll of the people was so sthrong he was forced to save the coontry in the ligislature ahnd thin hees woife flew into society loike a skyrocket goes into the heevens ahn a dark noight. Noo, little Jerry, Jr., had a heed shaped as mooch loike a cannon bahl as that oov hees father ahnd theer was no ividence oov eets being a timple of lairning. Well, wan oov yahr pridecessors, Mr. Smeeth, failed to promoot yeng Jerry, Jr. Boot, moind you, Mr. Jerry, Sr., deed not fail to promoot Mr. Smeeth into the loife insurance business or soomthing, ahnd there you ahr."

"Mr. Smeeth was a foine mon ahnd he wroot a foine cahrs of stooody fahr the schools, boot he poot so mooch toime in theenking that he had no toime to acht; thin came Mr. Brahnd, hees sooksissor, who poot een so mooch toime achting he had no toime to theenk. He came from a beeg university ahnd was full of notions he got from soom beeg ideicator who heeld that ahl the idecation was wrang ixcipt hees way. He had fixed oop soom foine notions fahr the idecation oov children een the ceety where soom oov the mothers hahd no toime to train their cheeldren because they had to play foive-hoondred, ahnd oothers had no toime to take cahre oov them because they had to wash and iron to suppahart thim, ahn keep their father comfortably dhrunk ahl the toime, ahnd the rist of thim—the beeg meedle class—a sphending their toime ahnd mooney thryin' to get promoted into the nixt class aboov thim. Noo, Mr. Brahnd thoot he moost teach the new idecation no matter who he taught it to nar what their perints deed fahr a leeving. Boot, we're not a ceety, Mr. Kindill, we're not a ceety. Eef yohr keen scinted you cahn smill the clover blossoms ahn Main sthreet ahny day, ahnd any quiet noight you cahn heer the roostle oov the cahrn blades."

"Yis, ahnd Oi ahlmoost forgot to say he had thim teaching agriculthure in a booshel of sahnd oon the top of a keetchen table in the cahrner oov the schoolroom. Noo, there you ahr. He was a foine yeng mon, boot he would noot have known wheat from oats eef he had seen it roipe een the field."

"The new idecation ees ahl roight, boot eet takes sinse to know what koind of a community to grahft eet on to bear gude fruit. Mr. Brahnd was a foine mon, I say, boot hees frinds ahnd suppahrts said he lacked tacht

ahnd hees inemys said he was a dahm fool. So there you ahr."

"But, Mr. Macdonald, granting that his theories of modern education were a little in advance of the times, don't you think it is proper that the school and advanced theories should lead the community to broader views of life and educate for the future demands? The school ought to set the children to thinking about the possibilities of scientific agriculture, business methods and even more. It must produce creative genius to conserve our ever diminishing resources for the benefit of the future."

"Noo, that's a foine view to take oov the situation, Mr. Kindill. Oi see you've been sthudy-ing soociology ahr something oov the kind—Oim glad yohr a theenking mon ahnd I know you'll get straightened oot weeth a few hahrd knooks. Boot lit me till you, yahr ahl wrang oon the foondamintal preenciples oov the thing. Yohr school does noot make soociety, but soociety ahnd its condeetions make the cahrs oov sthudy fahr the school."

"The invinthor does noot chreate a theeng ahn thin chreat the need fahr iit. The Ahl Woise Chreator chreates the need ahnd the invintor suppllies eet weeth a cotton geen ahr a shridded wheat biscuit."

"Why, my dear Mr. Macdonald, don't you realize that advertising—educative advertising—created the need for breakfast food?"

"Theer, theer, Mr. Kindill, joost as Oi ixpiet, yohr wrang again. The ghreat apostle Paul had a need fahr Christianity, boot he had to be knocked doon befahr he could feel hees need."

"Whin Oi was working hahrd at the cahrpenter's trade Oi ate ham ahnd iggs fahr breakfast ahnd was ready fahr moor at noon. Boot whin I got too drawin' plahns fahr beeldings, here een the office, I got endegistion ahnd by noon my head was as noomb as a posht. Remember, more min ahr woorking eensood than there were wan ahr two hoondred years ago ahnd thees chreates a need fahr deerferent food, ahnd theer you ahr. Invintors ahr noot produced by making doilys and planting cotton seed een the sahnd oon keetchen tables een the schoolroom fahr moice to eat oop at noight."

"The invintor ees partly a product oov the schools, but eef the effeciency oov the schools was joodged by the noomber oov inventoors toorned oot from thim yohr salary would be devided by a hoondred. The invintoor lairns to read ahnd understhand books een school—that's hees kit oov tools ahnd eef hees eyes ahr bright he sees things outside and thin he poots the two together—there's your invintor."

"Naw, naw, Mr. Kindill, society goes teahr-ing along mooltipying een noombers ahnd mooltipying eet's needs ahnd thin the school cooms teahr-ing along after it ahl oot of breath weeth trying to keep oop. Noo, here we ahr, discoosing philosophy ahnd Oi niver grideated from the seeventh grade, besides we're ahl the soobject—Oi was talking to you aboot yohr pridecessors—wan was too slow to catch the train and wan was theer ahn hoor ahead oov toime. Oi would suggist that you get there joost een toime to buy yohr teecket, get your

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STANDARDIZATION OF JANITOR SERVICE

By Superintendent G. M. WILSON, Connersville, Ind.

The physical basis of our school work is in charge of the janitor. We look to him for proper temperature, ventilation, humidity, and cleanliness. These matters are related very directly not only to the health and happiness of the child but to his progress in school work as well.

"Methods of precision are as practicable and as necessary for caretakers of a school as for nurses in a hospital; their routine practice is entirely possible with reasonable instructions," says Dr. Helen C. Putnam.

Janitor service being physical and manual would seem to lend itself readily to standardization. But my investigations show a general absence of standards and a resulting inefficiency and neglect. This is wrong, for compulsory education means compulsory contagion and disease unless physical conditions are kept right. No good home-maker has the dirty floors and foul air with which we shut up children and teachers in the schools.

A Study of Janitor Service.

The desire to improve the janitor service in my own city led me, a few years ago, under the inspiration of former Commissioner of Education Brown, to attempt a study of janitor service. It became evident early in the inquiry that there was little agreement as to definite standards. The facts gathered with reference to cleaning, will illustrate the situation. Out of forty manuals of rules and regulations examined, only twenty-four made reference to the duties of janitors. With a possible mention of and agreement on 288 points, in connection with scrubbing, sweeping, dusting and other simple points in cleaning, there was an actual mention of 58 points and a practical agreement on 13. Two of the forty manuals indicated how the scrubbing was to be done; two indicated how the woodwork was to be cleaned. Three indicated how the walls were to be cleaned, but the practice, even among the three, varied from cleaning the wall once in two months to once a year. Six of the forty manuals indicated how often the windows were to be washed, but even among the six mentioning the point of frequency varied from one month to three months. Cities whose manuals of rules and regulations were examined were scattered throughout the states of New York, New Jersey, Pennsylvania, Maryland, Ohio, Indiana, Illinois, Minnesota, Nebraska, Iowa, Montana, California, Texas, Louisiana, Georgia and Kentucky. The cities are fairly representative of the country, but even among communities in close proximity there is no more agreement than among those widely scattered. The following table shows the distribution:

	Floors How Dressed	How Often	How Scrubbed	How Often Rooms	How Often Toilets	Often Swept	How Cleaned Wood-work	How Often	Cleaned Walls	Dusting	Often Cleaned Windows
Number mentioned out of 40..	0	0	2	10	6	9	2	9	3	11	6
Largest Practical Agreement..	..	..	2	6	4	8	2	3	2	9	2
Range of Practice.....	..	..	"Mop"	Monthly to twice a year	Daily to yearly	Daily to twice a week	"Wash"	Monthly to twice a year	2 Months to yearly	Daily to twice a week	1 Month to 3 months

No Agreement on Practice.

This study of rules and regulations was followed by sending out a questionnaire in July, 1910, in which the chief points covered were the following:

How are the floors dressed? How often in halls, in rooms?

Are floors scrubbed or mopped, and how often in halls, in rooms and in toilets?

How is the sweeping done? With broom, with brush, with dust-down?

How often is the sweeping done?

In like manner, details as to cleaning the woodwork, dusting, washing windows and caring for the blackboards, were called for. Not all of the returns from this questionnaire were summarized, but a number were selected at random, which from all appearances, were fairly representative. The cities selected were distributed throughout New York, Ohio, Indiana, Iowa, Kansas, Florida and Illinois. In seventeen cities selected at random, with the possible mention of and agreement on 476 points, there was an actual mention of 274 points and a practical agreement on 155 points, which is 56 per cent of the points mentioned, or 32 per cent of the total points. The 32 per cent of agreement on total points is the significant figure as omission in the questionnaire means the absence of any definite standard. The word "practical" in this study was inserted in order to get agreement where there was very little evidence of agreement. For instance, woodwork cleaned from two to five times a year was considered as agreement. The real agreement is in having no definite standard. This is further illustrated by some of the details. Woodwork was cleaned variously from daily to once a year. The baseboards were dusted in some places daily, in other places yearly. The windows were washed in a few places weekly, and other places less frequently to twice a year. The following table shows the distribution:

	Floors How Dressed	Often Room	How Cleaned	Often Halls	Often Toilets	Often Swept	How Cleaned	How Often	Often Walls	How Dusting	Windows Often Washed
Number reporting out of 17..	11	8	10	11	10	15	14	14	12	14	13
Largest practical agreement..	7	2	6	4	4	14	11	5	3	8	10
Range of difference..... (Underscore prevalent)	Oil	Mo. to 5 years	Mop	Daily to yearly (mo.)	Daily to yearly (mo.)	Daily	Wash	Month to yearly (3x a yr.)	2 to 5 years	Damp cloth	Weekly to 4x a year

It seems reasonable to conclude from the study of rules and regulations and from the returns based upon the questionnaire that there are no well established standards in the matter of schoolroom cleaning. The large number not reporting or reporting very indefinitely is stronger evidence of the absence of standards than the lack of agreement among those reporting. The two lines of investigation point to the same conclusion. Variations may be due to conditions, but under any condition, there should be a standard.

Improvement Noted.

About two years ago Dr. Leonard P. Ayres studied a few facts with reference to schoolroom cleaning in 1,038 cities scattered throughout the United States. In his optimistic way,

being from one day to never. The median frequency of the washing of windows among the 1,038 cities was four months, the variation being from once a week to once a year, seven again reporting never.

In order to test out to an extent the statement made by Dr. Ayres, that "these most encouraging signs of progress, with respect to the cleaning of schoolrooms, indicate that the day is not far distant when our schools shall be as clean as hospitals," I secured from Dr. Ayres, under strict secrecy, the names of fifty cities where dust-absorbing compounds were not used in sweeping, and the names of fifty cities where moist cloths were not used in dusting. To these one hundred cities, letters were addressed, including a self-addressed postal. The returns indicate that the optimism of Dr. Ayres is not without some foundation. Twenty per cent of those responding have, in the last two years, adopted the plan of using dust-absorbing compounds in sweeping, and 80 per cent are persisting in their former insanitary methods. Thirty-six per cent of those responding indicate that they are now using moist cloths in dusting, while only 64 per cent persist in the use of former methods. Not all responded. It is possible that those who could respond favorably responded a little more promptly and therefore a little more surely. The replies indicate that progress is being made slowly and that much remains to be done, for only the larger and more

fortunate schools are included in the inquiry.

The further study made recently through the courtesy of educational journals, in printing a questionnaire, does not add in any material way to the information as gathered in former studies. Window washing, for instance, continues to vary from once a week to summer showers. Throughout it is noticed that it is with rare exception that any definite standards exist with regard to cleaning. While I do not know with any definiteness that the same conditions exist in other lines of janitor work, yet, I will venture that many are ready to agree that the same conditions do exist and that there is a general absence of definite standards with regard to lighting, heating, ventilation and practically all of the lines of janitorial service.

Definite Standards Possible.

Briefly I desire to defend the thesis that it is possible to fix definite standards and to thereby greatly increase the efficiency of janitorial service. As regards ventilation, we know that each pupil is entitled to 200 cubic feet of air space with an inflow and exit of thirty cubic feet of air per minute. It is possible to measure and insist upon this standard of fresh air. We know that foul air is conducive to catarrhal and pulmonary diseases, and that contagion spreads under such conditions. We know, on the other hand, that fresh air is very closely related to a fresh mind, to progress and success.

In the matter of lighting, we know that clear, clean glass should equal one-fourth the floor space, that the light should come from one side of the room only, that no light should come from the side of the room opposite the teacher's desk, that the width of the room should not exceed



thirty feet from the left side, that chipped glass reduces the amount of light from 25 to 50 per cent, that the upper one-fourth of the window furnishes one-third of the light, etc. We know, also, that this is directly related to cleaning, because dirty windows mean a reduction in light, varying from 10 to 50 per cent. Knowing all of the foregoing, it seems possible to determine a definite standard for lighting, and in any particular locality, a definite standard for cleaning the windows. It is just as surely known that this will be secured by a direction to wash the windows "when dirty" or "as often as needed."

It is well known that enlarged tonsils, catarrhal diseases, generally nervous and anaemic conditions follow the failure to properly humidify the air. We have a definite standard fixing a lower limit as 60 degrees, and the upper limit as a relative humidity of 70 degrees. We know the methods by which to secure the proper standard of humidity. So here again, it would seem possible to fix and carry out a definite standard.

With reference to the temperature of the schoolroom, we know that a uniform temperature of 68 degrees means from 25 to 50 per cent

less coughing and colds in the schoolroom than a temperature of 72 degrees. We know that excessive temperatures mean a weakened condition, rendering the child susceptible to disease and impeding progress in school work. We have been told repeatedly that the temperature should never, under any circumstances, be permitted to pass 70 degrees Fahrenheit, the lower limit being 66 degrees. In regard to temperature, there is certainly one standard which can be fixed with confidence. And, yet, we find a wide variation from this standard and a prevalence of high temperatures.

(Concluded on Page 45)

## A New Element in High School Education

By PARKE SCHOCH, A. M., Principal West Philadelphia Division High School

The general trend of educational thought and effort today is toward the practicalizing of old courses and the projecting of new ones in which the dominant idea is vocational training in some phase or other. This new movement does not confine itself to one grade or department only of education; it has already left its impress upon every step in a youth's training from the grammar school to the university. No longer are we content with the mere discipline and refinement of the mind to be acquired through the study of languages, mathematics, history and the sciences. The popular clamor is for courses that, while they preserve in the main the desirable features of the old education, will contain also a degree of training of a specific nature that will closely relate the youth upon graduation to the real business of living. The effort to meet these new demands is now finding expression in the grammar schools by providing a little manual work for the boys and domestic training for the girls; in the high schools by offering special and well-defined courses in the manual arts, in household science and arts, and in commerce; in the college and university by maintaining distinct courses or schools of engineering, law, medicine, theology, agriculture, business administration, etc.

### Business Training Neglected.

Admirable as are these provisions for satisfying modern educational needs, they fall short of completely doing so in one important detail; namely, that in the working out of the special educational problem of one or the other of the courses named, there is a tendency to neglect certain subjects that are fundamental to the life of every man, no matter what profession or activity he expects to follow. To illustrate: The framers of our courses in theology, medicine and engineering, for example, seem to have in mind the sole thought that the graduate is to be a minister, a doctor or an engineer, forgetting entirely the important fact that he is also to be a man, that success in his profession is conditioned largely upon success in administering the business incident to that profession, and that this is dependent in turn upon that skill with which he manages his personal affairs and those of the family over which he presides.

In short, professional success measured by material standards rests squarely upon business success. Or, to put it in another way, every man, in order to succeed in life, need not know law, medicine or theology, but he must know something about the organization and operations of the social and business world of which he is necessarily a part. Assuming, then, that the successful man in every walk of life must be in a sense a successful business man, we come to the real point of this article; namely, that no man's education is complete that does not include a training in private business ad-

ministration, and since the formal education of most young men ends with the high school, it is in that school where such training should be provided.

### Growing Needs in High Schools.

With greater emphasis each year the public is demanding of the high school, and rightly so, that its courses shall adapt themselves to the requirements of an increasingly complex life and to the needs of that great majority who go directly into self-supporting work. It will not do to say, in answer to this appeal, that the high schools have already conceded enough in this direction by providing courses in business training for those who wish to elect them. This is not a case for election; the business of serious living confronts every boy and girl upon leaving high school, and no matter what the course there elected and pursued, whether college preparatory or general, normal, manual training or commercial, the preparation for real life cannot be complete without an elementary course in general business practice and the management of private affairs. Therefore we are ready to say that into every course now existent in any high school, and in all future courses there should be provided time and facilities for familiarizing boys and girls with the general structure of the business world and their personal relations to it, and with the most approved methods of private finance.

If objection were to be raised here by school principals that curricula are already too much crowded with desirable things to teach, answer might be made that but very little further encroachment upon the school hours would be needed for such a course, as the writer has in mind (not more than an equivalent of two or three periods a week for one year). If this time could not be found except at the expense of time now given to other subjects, educators might rest assured that the public would look with great favor upon the clipping of an hour a week from higher mathematics, foreign language and ancient history, for instance, and the allotting of this time to a subject that has so direct a bearing upon the welfare of people in general. Since much of the distress in everyday life is caused by the loss of funds or the improper use of them, due to ignorance on the part of the average person of the simple rules and processes of business, such a course would strongly appeal to the good judgment of parents country-wide who now freely and fairly complain that our public school courses do not lead to definite and practical ends.

### A Desirable Course Outlined.

For the information and guidance of those interested, the subjects below may be recommended as desirable and feasible for such a course:

**Money and Banking**—Meaning and kinds of money; the difference between savings banks, commercial (national and state) banks and

trust companies; how to open and keep a bank account; how properly to draw checks, drafts and notes, so far as the individual would have need to do so; the functions of building-loan associations, etc.

**Business Letter Writing**—How business correspondence differs from social and other forms of correspondence; practice in writing letters, telegrams; how to use properly the postoffice facilities.

**Insurance, Life and Fire**—Not technically and professionally treated, but as every responsible individual needs life insurance, and every property owner, fire insurance; kinds of policies; how to proceed to get insurance, etc.

**Property Instruments**—Explanation of the vital clauses of leases, deeds, and bills of sale, in so far as renters and buyers of property should understand them.

**Investments**—How to invest money safely and profitably in bonds, stocks, mortgages, real property, etc.; each kind of security carefully explained; how and why to avoid speculative properties of all kinds.

**Personal Account-Keeping**—Involving the proper use of the cash book for personal expenses, and the principles of the ledger account for household expenses.

### Of Benefit to All Students.

Throughout the whole course, the personal point of view, not that of the professional business man, would be kept in the foreground; that is, how the average man in private life should fit himself into various channels of business that naturally and inevitably open to him as his life develops into responsible manhood and fatherhood. The same is but little less true today of women who, in a greater degree each year, are asserting and achieving a business independence and a responsible womanhood that demands for the girls of the present generation the same kind of education in the main as is provided for the boys.

Indeed to such an extent is this true that the recommendation may be safely made that such a course as is here briefly outlined should constitute an integral part of the training given every boy and girl in the high school. The boys and girls who are entirely neglected in this important matter are those in the so-called general and college preparatory courses; it would be doing them but scant justice to leave them present mainly disciplinary courses with this modicum of education and training in the real business of living.

To the youth who does not go to college it would serve as a valuable basis for making a start in life; to the one who does go it would be of material benefit during the four important college years; while to both in later life, business or professional, it would stand as a safeguard against the many financial pitfalls that are daily engulfing those who are entirely devoid of the A B C of common business sense.





CENTRAL COMMERCIAL AND MANUAL TRAINING HIGH SCHOOL AT NEWARK, N. J.

## Recent Schools of E. F. Guilbert and Guilbert and Betelle

*Erected in Newark and East Orange, N. J.*

Following the reorganization of the school board of Newark, N. J., four years ago, a complete rehabilitation of the school plant was undertaken. The new board, as constituted since that time, is a small body of nine members, which has set efficiency and a uniform development of the entire school system as its ideal. The general reorganization of the schools, which it has successfully carried out, and the notable results which have been achieved by the professional factors under its direction, we cannot here discuss. The building operations which were undertaken were, however, no less necessary than the constructive work of teachers and supervisors and have been realized with no less notable results.

From the outset the board has reserved to itself only the legislative and judicial functions conferred by law and has delegated to its paid officers full powers for initiating and carrying on every detail of the administrative labors necessary in their respective departments. The results have unfailingly shown the correctness of the theory that city school administration cannot be successfully attempted by laymen sitting as a board of education, but must be placed in the hands of trained and experienced professional experts.

The building activities of the Newark board of education during the past four years have been extraordinary when the size of the city is taken into consideration. Nineteen new buildings and additions have been undertaken, providing for nearly fifteen thousand pupils, in approximately four hundred classrooms. Included in the nineteen buildings are thirteen auditoriums and as many gymnasiums, which serve not only for the children enrolled in the respective buildings, but are also open for evening use. The total cost of these buildings is slightly less than \$2,700,000, in itself a great sum of money, but not so large when the amount of accommodations provided with it is taken into consideration. For, Newark is erecting high and elementary schools at a general

average cost of \$180 per child. This record is very creditable when the cost in such neighboring centers as Boston, New York and Philadelphia, which have similar labor and material markets, is considered.

The entire work of planning and supervising the construction of all these buildings has been ably handled by the construction department of the board, under the direction of Mr. Ernest F. Guilbert, architect. Associated with Mr. Guilbert has been Mr. George W. Knight, the school engineer, who has designed and supervised the heating, lighting, ventilating and other engineering details.

Of the nineteen new schools and additions, the most important building which has been undertaken is the Central Commercial and Manual Training High School, illustrated on pages 19 and 21. The school has a capacity of 1,200 pupils and is fully equipped for complete college preparatory, English, science and vocational courses.

The exterior is a pleasing adaptation of collegiate gothic in brick, cut stone and terra cotta. The most striking feature is the arrangement of the great terrace and outside stairways, leading to the main entrance of the building. The architect has here made the best possible use of a sloping site, not only for utility, but also for architectural beauty.

The basement, which is largely above the level of the surrounding site, is devoted to locker rooms, foundry and forge rooms, stock rooms and space for the heating and ventilating apparatus. A large gymnasium is located below the terrace, outside the main structure. This portion of the building also contains the boiler and engine rooms and space for a mechanical testing plant.

The first floor contains a machine shop one hundred feet long, three classrooms, a large reference library, administrative offices, a pattern shop, a sheet-metal working shop and space for woodturning, joinery, masonry and wood-finishing. The auditorium, which has a seating

capacity of more than 1,000 persons, is also located on the first floor.

On the second floor are five standard classrooms, three rooms for business practice and typewriting, two chemical laboratories separated by a lecture room, two sewing rooms, two millinery rooms, a room for dressmaking and a large study hall. The gallery of the assembly room is entered from the level of the second floor.

The third floor contains eight standard classrooms, a music room, a biological laboratory, two kitchens, a laundry, a great machine drawing room, a freehand drawing room, two physics laboratories and a lecture room.

The fourth floor is largely unfinished and will not be completed until the enrollment of the school demands additional classroom space. It contains at present only two lunch rooms, with a large kitchen adjoining, and a music room.

The main portion of the building is square in shape with classrooms surrounding corridors on all four sides. Four sets of stairways are provided and three elevators have been installed.

Space will not permit a detailed account of the remaining buildings completed or under way in Newark. The illustrations on these pages will convey a better idea of their character than any attempt at description.

The list includes the following:

*East Side Commercial and Manual Training High School.*—This building is similar to the "Central" high school, but accommodates only 600 students and has no shops. It cost \$250,000.

*Morton Street School.*—A thirty-five room addition, including a gymnasium and an auditorium to seat 750 persons. It contains rooms for elementary manual training and cooking. The building is located in a congested section and the playground has, therefore, been placed on the roof. The new building cost \$240,000.

*Lafayette Street School.*—This building is provided with fifteen classrooms, and an audi-



torium to seat 600. It is anticipated that the building will be double this size at some later time, when the old building is razed. The accompanying illustration indicates the completed building. The roof is a playground. The right-hand half has been completed at an expenditure of \$125,000.

**Webster Street School.**—This building is provided with sixteen classrooms, a gymnasium and an auditorium to seat 540. It is estimated that the building will be double this size at some later time when the old building is razed. The accompanying illustration shows the completed building. Cost, \$118,000.

**Ridge Street School.**—This building has sixteen classrooms, gymnasium, auditorium to seat nearly 600, also rooms for cooking and manual training.

**Peshine School.**—This building has fourteen classrooms, an auditorium and rooms for cooking and manual training. The auditorium is arranged with a level floor and will be used also as a gymnasium. The building is unfinished on the rear, with provision for an extension to double its seating capacity. Cost, \$105,000.

**West Side School.**—This building has seventeen classrooms, an auditorium and rooms for cooking and manual training. The auditorium is arranged with a level floor and will be used also as a gymnasium. This building is unfinished on the rear and is arranged so that the classroom capacity can be doubled. Cost of completed section, \$115,000.

**Montgomery School.**—This building contains twenty-three classrooms, an auditorium to seat 875, also rooms for cooking and manual training. It has been provided for a definite extension that will nearly double its classroom capacity. When completed there will be a large playground on the roof. In this building an open-air room has been provided to occupy the sunny southeast corner of the top story. Almost the entire outside walls of this room are series of windows that can be entirely opened for the free passage of air. Over these windows are wide projecting glass canopies to protect against

the blinding sun, or from rain or snow. Thus the room is practically outdoors, but can be closed in a few moments at any time. Cost, \$140,000.

**Miller Street School.**—This building will have seventeen classrooms, a gymnasium and an auditorium to seat about 800. Provision has been made for a six-room addition on one wing of the building, also for nearly doubling the main frontage when it is found necessary to raze the old building. Cost, \$130,000.

**Cleveland School.**—There are thirty-seven rooms, gymnasium and auditorium to seat 830 in this building, together with cooking and manual training rooms. This roof has two large playgrounds. Cost, \$245,000.

**Newark Normal School.**—This building, it is expected, will be finished in December, 1912. It will accommodate 400 normal students and about 200 primary pupils. Has an auditorium to seat 720, a gymnasium and numerous rooms for special work. Its cost will be \$245,000.

**Avon Avenue Addition.**—This addition consists of twelve classrooms and a gymnasium.

**Fourteenth Avenue Addition.**—This comprises two extensions, totaling nine classrooms.

**Seventh Avenue Addition.**—This addition contains twelve classrooms.

**East and West Side Ungraded Schools.**—These two buildings are unique. They will accommodate about fifty pupils each. In addition to the classrooms, they have gymnasiums and manual training rooms. Cost, each, \$16,000.

**Barringer High School Gymnasium.**—This is a separate building, erected adjoining the Barringer high school, and is the largest gymnasium in the schools. It provides for a future running track, and has generous shower and locker room accommodations. It cost \$48,000.

While the buildings vary greatly in design, shape and size, many of the details of plan and construction have been standardized. The leading features of classroom size and lighting, disposition of stairways and corridors, arrangement of toilets, etc., may be seen by a glance at the plans of the Ridge Street school.

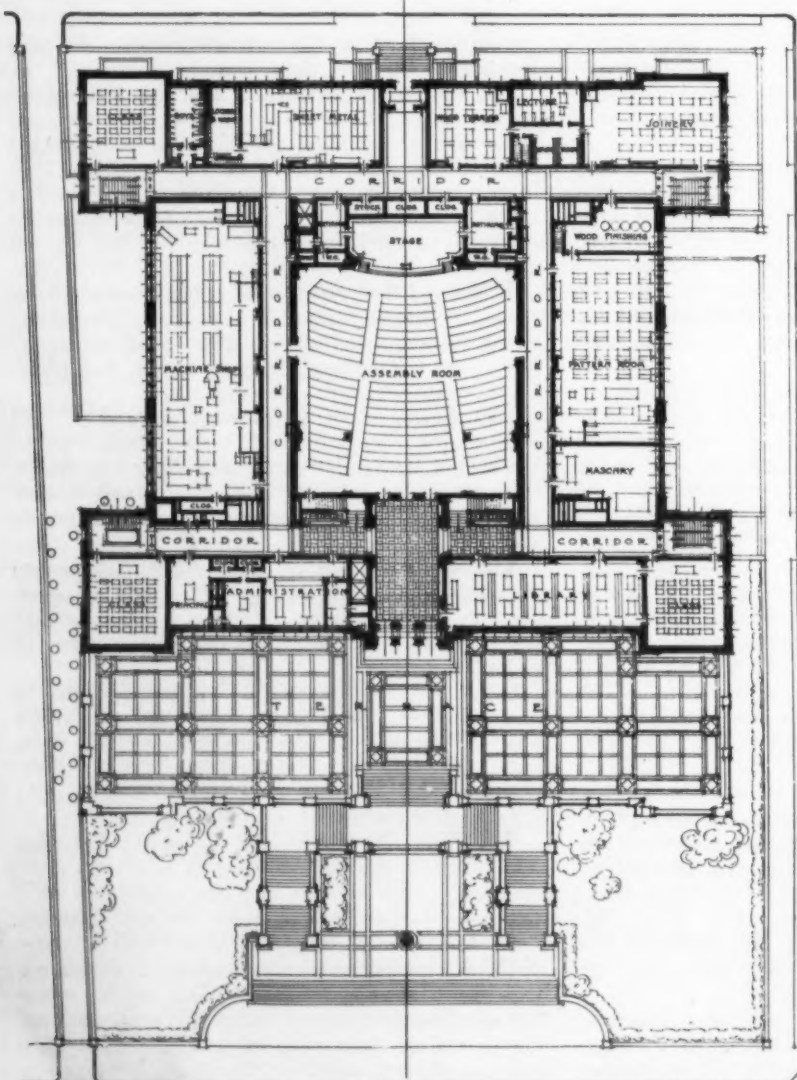
The classrooms are nearly all of uniform size

to seat thirty-eight children. They are unilaterally lighted and have a single door, where possible, opposite the teacher's desk.

Cloakrooms are dispensed with entirely, but large wardrobes, located at one side of the classroom, are introduced. They are planned to be of easy access to the classroom door and are readily supervised by the teacher. The ventilation of the classrooms and wardrobes is entirely separate.

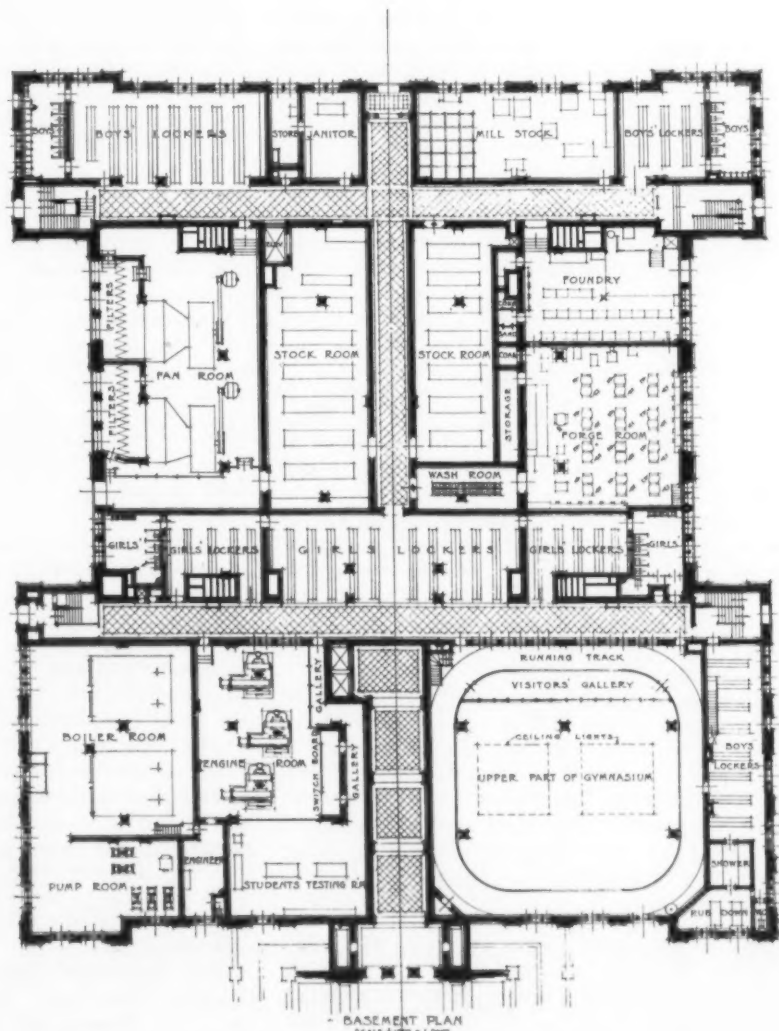
The kindergartens in all of the buildings are treated quite differently from the classrooms. The severity of the latter gives way to cheerfully decorated walls, paneled with a material resembling burlap. Simple stained glass and draperies are used to ornament the windows. A fireplace has been provided in several. The floors are wood generally, but rubber tile and linoleum has been used with satisfactory results.

All auditoriums are being constructed at basement or first-floor level, so as to be close to the ground. This is a distinct advantage, not only for school purposes, but also when the rooms are used in the evenings for lectures, etc. In most cases the auditorium stage is provided with dressing rooms, which are accessible from the corridors. The stages are also equipped with footlights and either overhead or side lighting behind the curtains. In the majority of instances the floor is slanting and in all cases except one a gallery is provided, which is reached from the corridors. From these upper corridors there are usually windows opening into the auditorium, and these windows can be swung open to accommodate an overflow in the form of standing room. In some schools these openings are not being fitted with windows, but in other cases the windows have been allowed to remain open at all times. Several of the auditoriums are lighted from overhead with stained glass ceiling lights, and others have windows in the side walls. The rear or front wall are never pierced, so that in no case does the audience or the speaker have to face the light. Very generous provision has been made for entrances and exits. Emergency exits have been arranged in most



- FIRST FLOOR PLAN -

FLOOR PLANS, CENTRAL COMMERCIAL AND MANUAL TRAINING HIGH SCHOOL.



- BASEMENT PLAN -



cases in addition to the doors connecting with corridors. There are three buildings where one large room is provided and treated as an auditorium, but will be used also as a gymnasium. In these, the floors, of course, are not slanted.

The floors of the auditoriums have been finished with wood or cement and the walls and ceilings have been decorated in a simple manner. Except in the rooms which are to be used for gymnasiums, the seating is permanently secured to the floors.

The thirteen gymnasiums have high brick wainscoting and are provided with visitors' galleries above the floor level. The high schools and the normal school are equipped with dressing rooms and shower bath.

Fireproof dust chutes are installed in all buildings with a small door opening at the floor level in each story, thus providing a very convenient method of disposing of all papers and general refuse that is not taken up by the vacuum sweepers. The material collected at the bottom of the chutes, in the basement, is removed in bags. Large dumb waiters are also provided for the transmission of all materials, books, etc., from the stock rooms to the various floors.

Pupils' toilets are placed on all floors of the buildings to avoid the long trips to the basement, as in the past. These are separately ventilated and have never been found objectionable. They are equipped with standard fixtures.

With the exception of the two ungraded schools and one addition, all of the buildings are fireproof. In most cases the stairs are separated from the corridors by fireproof doors and wire glass partitions, thus keeping the stairways free from smoke. The new Miller Street school is provided with an interior fire stairway, open to the outside air, and interlacing with the regular pupils' stairways, also fireproof, for general use. The construction is believed to approach the ideal for fire escapes for this or any other type of building. It is probable that the fire stairs will not only be of service during fire drills, but actually used in all weather except the most severe, thus doubling the stair capacity.

Where the buildings cover a large percentage of the property, playgrounds have been provided on the roof. These roofs are covered with a flat red tile pavement, and the walls are carried well above the roof level. In some cases, they are provided with boys' and girls' toilets. Large play courts are also provided for grammar schools in the basement and have windows almost as large as those for the classrooms. Substantial continuous seats are constructed on the walls of these courts, without legs so as to avoid interference with easy cleaning.



TERRACE, CENTRAL COMMERCIAL AND MANUAL TRAINING HIGH SCHOOL.

In discussing the effect of the buildings, the Newark "Call" pays them a well-merited tribute when it says:

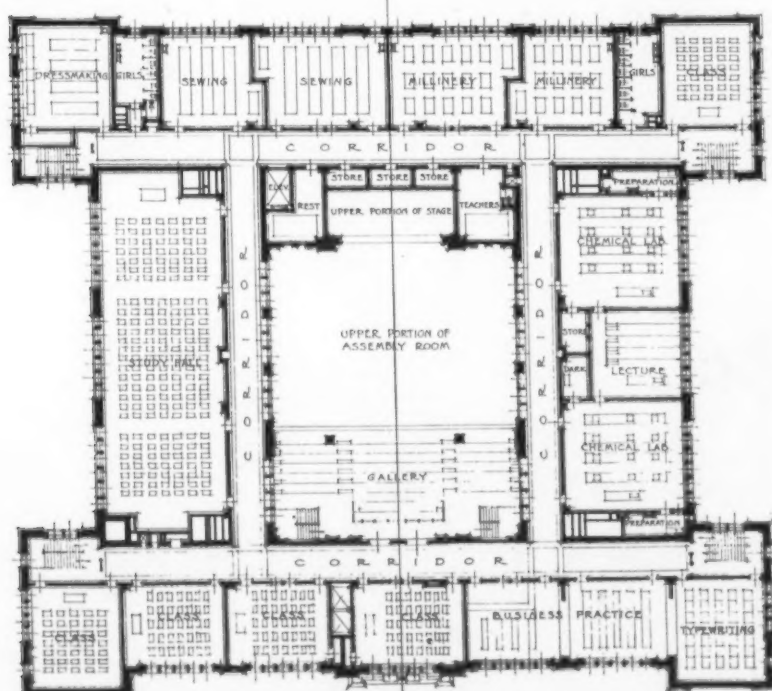
"The influence upon all of Newark of these new schools is deep-seated and forceful. School was never in the world so attractive as it is today. Not only do the children like to go to school as their forebears never did, but their parents are proud to have them. Hundreds and hundreds of the children are in more healthful places and environment during school hours than at any other time in the twenty-four, for the modern school building is working ceaselessly to counteract many untoward influences, quite as truly as the educational side of the institution. Physically, the new-idea school building improves all its neighborhood; it benefits real estate all about it; it has practically annihilated the old impression that a public school was a deterrent to the better growth of the immediate property. In short, the whole tone of the city is being improved by the new school."

Mr. Guilbert's schoolhouse work, so success-

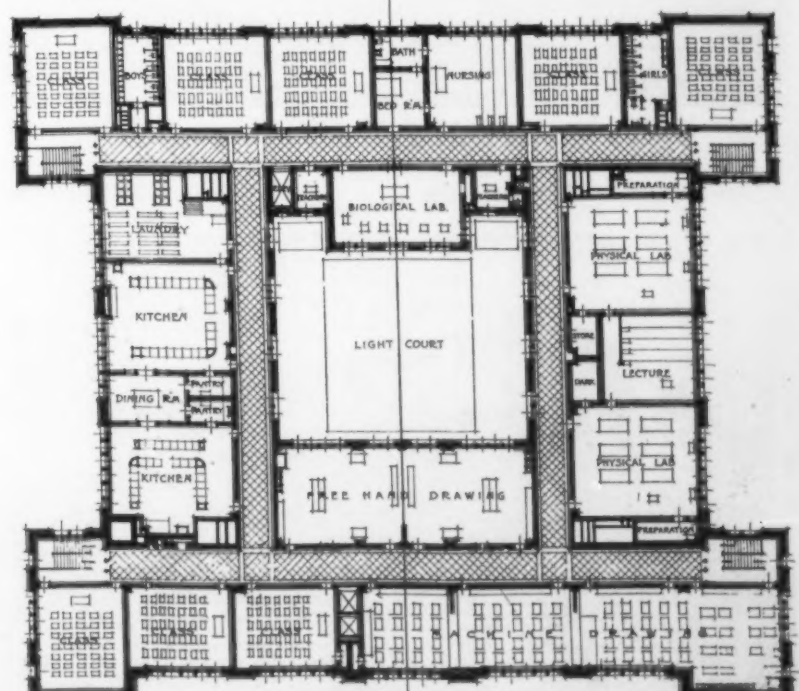
fully exemplified in the buildings just described, has not been limited to the city of Newark. The firm of Guilbert & Betelle, of which he is the senior member, has a number of splendid schools to its credit. As the official architects of the city of East Orange they have planned and recently completed an elementary school and a high school building. The latter is no less remarkable than the Newark "Central" high school and presents a solution for a peculiar local problem that is of more than passing interest.

#### EAST ORANGE HIGH SCHOOL.

The planning of the new East Orange High School presented a peculiar problem on account of the desire to restrain and use the old high school in connection with the new building. With this purpose in mind, property was purchased at the rear of the old building extending west to the next street. This permitted the new building to be designed in a more appropriate style than the old one. The two buildings were joined with a connecting wing, consisting



SECOND FLOOR PLAN -  
SCALE 1/8\"/>



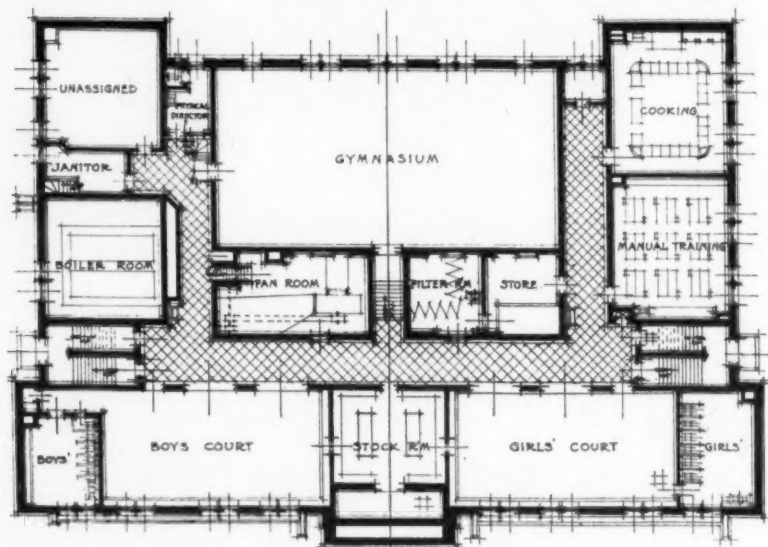
THIRD FLOOR PLAN -  
SCALE 1/8\"/>

FLOOR PLANS, CENTRAL COMMERCIAL AND MANUAL TRAINING HIGH SCHOOL.





MAIN ENTRANCE TO PESHINE SCHOOL, NEWARK.

KINDERGARTEN IN THE MONTGOMERY SCHOOL.  
Typical Kindergarten Room in the New Newark Schools.- BASEMENT PLAN -  
SCALE 1/4" = 1' 0"

BASEMENT, RIDGE STREET SCHOOL (See Next Page).



BUILDING FOR UNGRADED SCHOOL.



CLEVELAND SCHOOL.



MILLER STREET SCHOOL.

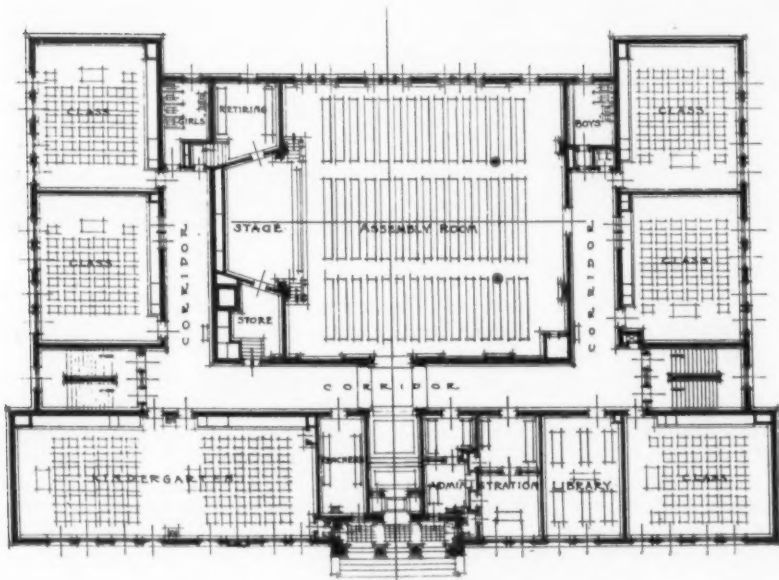


MONTGOMERY SCHOOL.

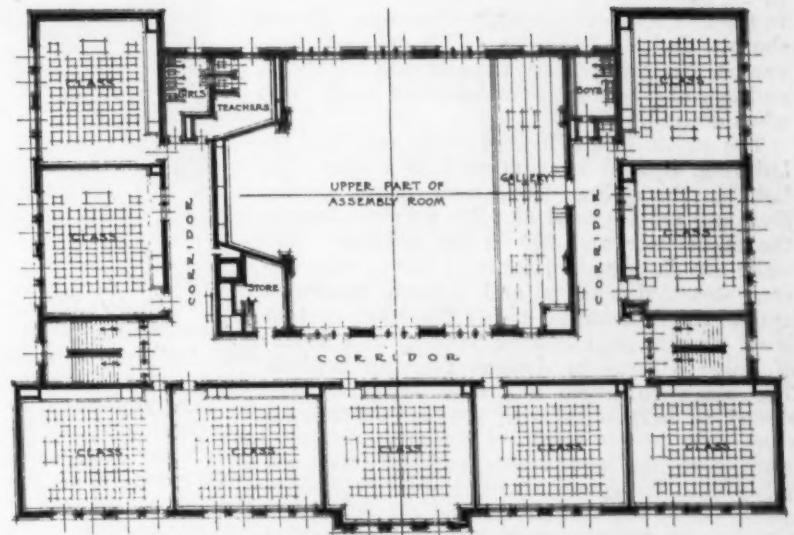




RIDGE STREET SCHOOL, NEWARK, N. J.  
Ernest F. Gullbert, Architect; George F. Knight, Engineer.



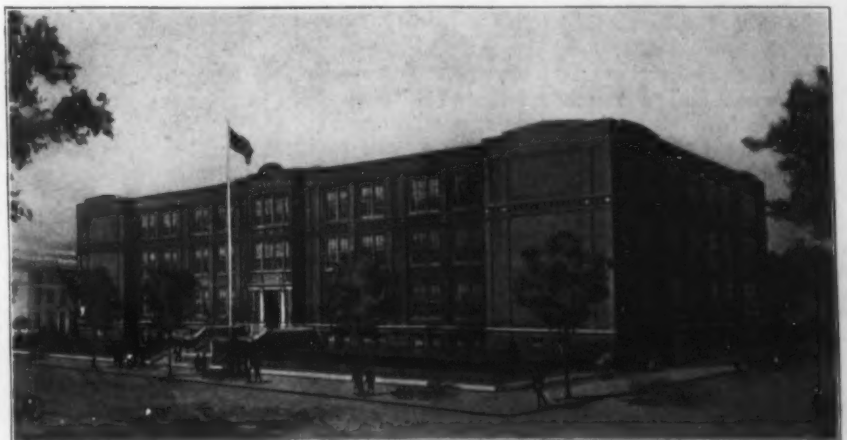
FIRST FLOOR PLAN, RIDGE STREET SCHOOL.



SECOND FLOOR PLAN, RIDGE STREET SCHOOL.



NEWARK NORMAL SCHOOL BUILDING.



WEBSTER SCHOOL.



of a corridor and classrooms. A glance at the plans will show how a service court is formed between the buildings for the delivery of coal, supplies, etc. It gives ample air and light to the rooms facing the court.

The architectural style adopted for the new building is a modified collegiate gothic, with grouped windows. The main entrance is flanked on either side with small octagonal towers, which form bays in the various rooms and give the dignity and importance so essential to the main front and entrance of a high school. The materials used are rough, red brick with wide, white-mortar joints, and light-gray terra-cotta trimmings.

The first floor, across the front of the old building, has been altered for use as administration headquarters and offices of the board of education and superintendent of schools. These quarters have been appropriately equipped and furnished, as will be seen from the accompanying illustration of the meeting-room of the board. This board room was formed out of an old classroom and an adjoining hallway, and shows what artistic results can be obtained from inexpensive materials when intelligently handled.

The new high-school building was designed for a rapidly growing city, with a present population of 40,000. The board very wisely decided to build a larger building than was necessary for immediate needs, leaving the portion not needed unfinished on the inside. In addition to the unfinished portions, provision was also made for a future addition. In the construction of the building every provision has been made for the completion of the unfinished spaces as needed, as well as for the construction of the addition when it shall be found necessary. Complete working drawings and specifications were made for the entire building.

The usual and special high-school departments are all incorporated in the building, such as manual training, commercial, freehand and mechanical drawing, arts and crafts, and science. The physical department consists of a large gymnasium, with accompanying boys' and girls' dressing rooms and showers in the main building; a girls' gymnasium and dressing room in the old building, and an open-air gymnasium in the roof space of the connecting wing, between the new and old buildings. This open-air gymnasium has proven very popular and beneficial, and can also be used as an open-air study room when desired.

The auditorium is located in the center of the building, lighted by a large leaded glass skylight in the ceiling. The room has a sloping floor and seats a total of 1,200 persons; 900 on the main floor and 300 in the balcony. The walls are decorated in tones of ivory, with colored stenciled borders, and colored ornament around the proscenium arch. The stage curtain is of an old gold colored velour, with bands of gold galloons in designs forming borders. The stage furniture has been especially designed to harmonize with the balance of the room. The arcade shown in a part of the room opens into the second-floor corridor, and not only makes the corridor more light, but gives a good view of the auditorium and the stage and serves as an overflow space for spectators. The general aspect of this room is one of quiet dignity and good taste. It is, without doubt, one of the finest school auditoriums in the East.

The building also includes a library located on the second floor over the main entrance; on the third floor there is a domestic science department and a lunch room and kitchen for serving lunches to the pupils at noontime.

On the first floor, on either side of the main entrance, have been placed the principal's private and general offices, and also a well furnished reception room. In the basement are located the boys' and girls' locker rooms, with individual steel lockers for each pupil.

The building is semi-fireproof. All corridors, floors, staircases, the auditorium floor and the floor over boiler room are of reinforced concrete construction, while the rest of the building is of timber.

The finished floors in the classrooms are maple, but the floors and base in the corridors are of a patented composition. This composition floor is put down directly upon the con-



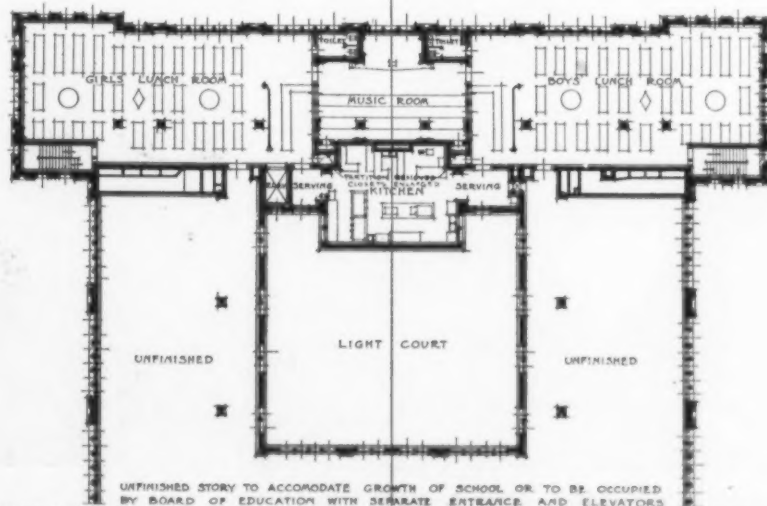
MAIN ENTRANCE, RIDGE STREET SCHOOL, NEWARK, N. J.

crete, in the form of a plastic material which afterwards becomes hard. It is elastic and easy to walk on, and, being without joints of any kind, is entirely sanitary.

The staircases are of reinforced concrete, without any well hole in center, simply a concrete dividing wall. They are closed off from the corridors by means of wide, fireproof doors which are hooked open ordinarily, but in case of fire are released and swung shut by pushing an electric button in the principal's office. This

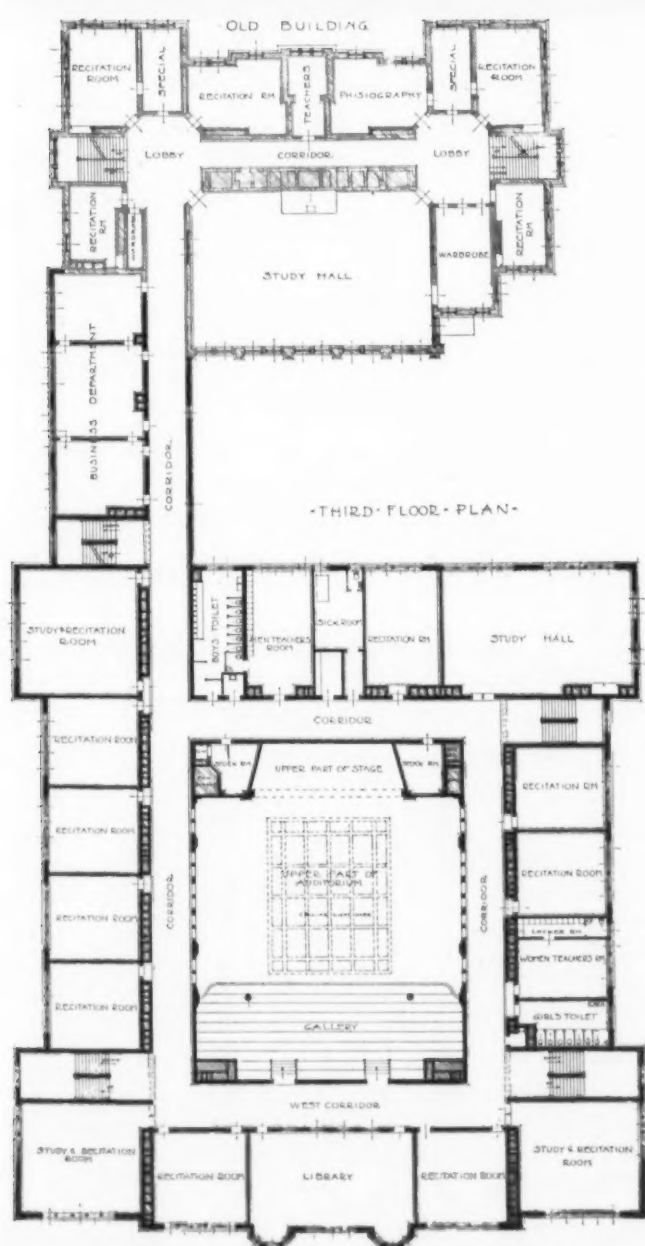
prevents the staircase from becoming filled with smoke, and permits safe exit for the pupils under all circumstances.

The cost of the building for the portion now completed amounted to \$220,000. To complete the unfinished portion and build that part forming a future addition will cost \$67,000, making a total cost of \$287,000. This figures out at the rate of \$203 per pupil and 14½ cents per cubic foot, which shows an extremely low cost for this type of building.



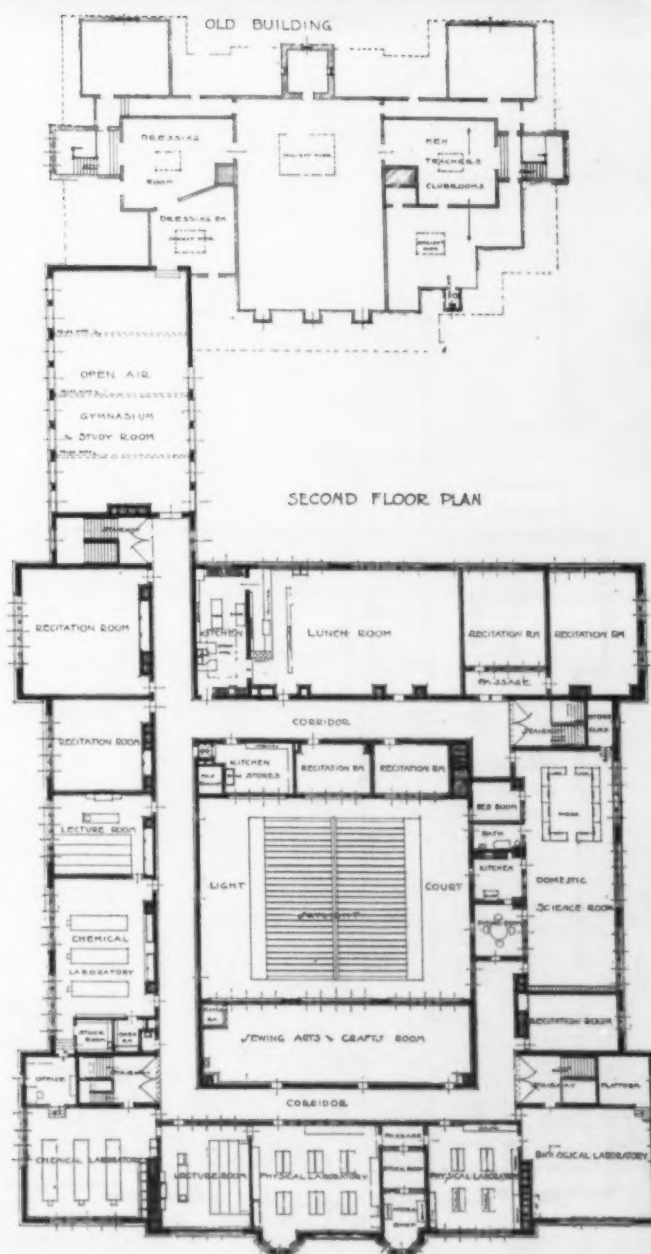
FOURTH FLOOR PLAN, CENTRAL COMMERCIAL AND MANUAL TRAINING HIGH SCHOOL.





EAST ORANGE HIGH  
SCHOOL,  
EAST ORANGE,  
NEW JERSEY.

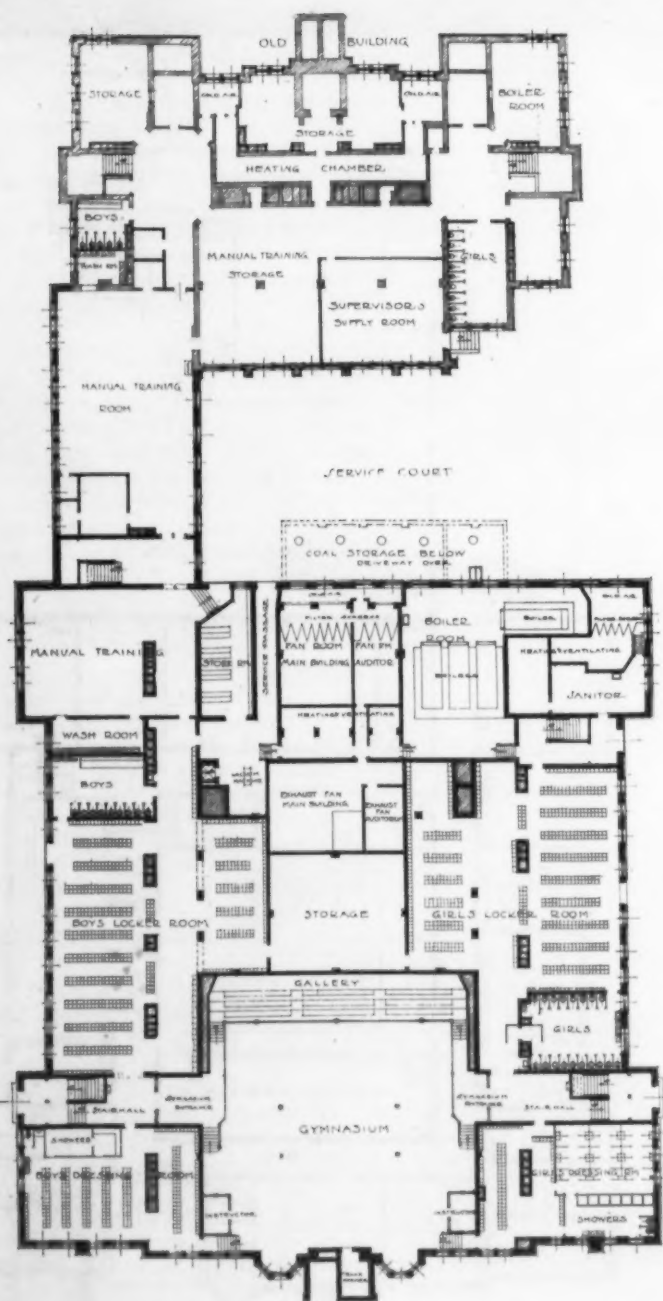
Guilbert & Betelle,  
Architects.  
Newark, N. J., and  
New York, N. Y.



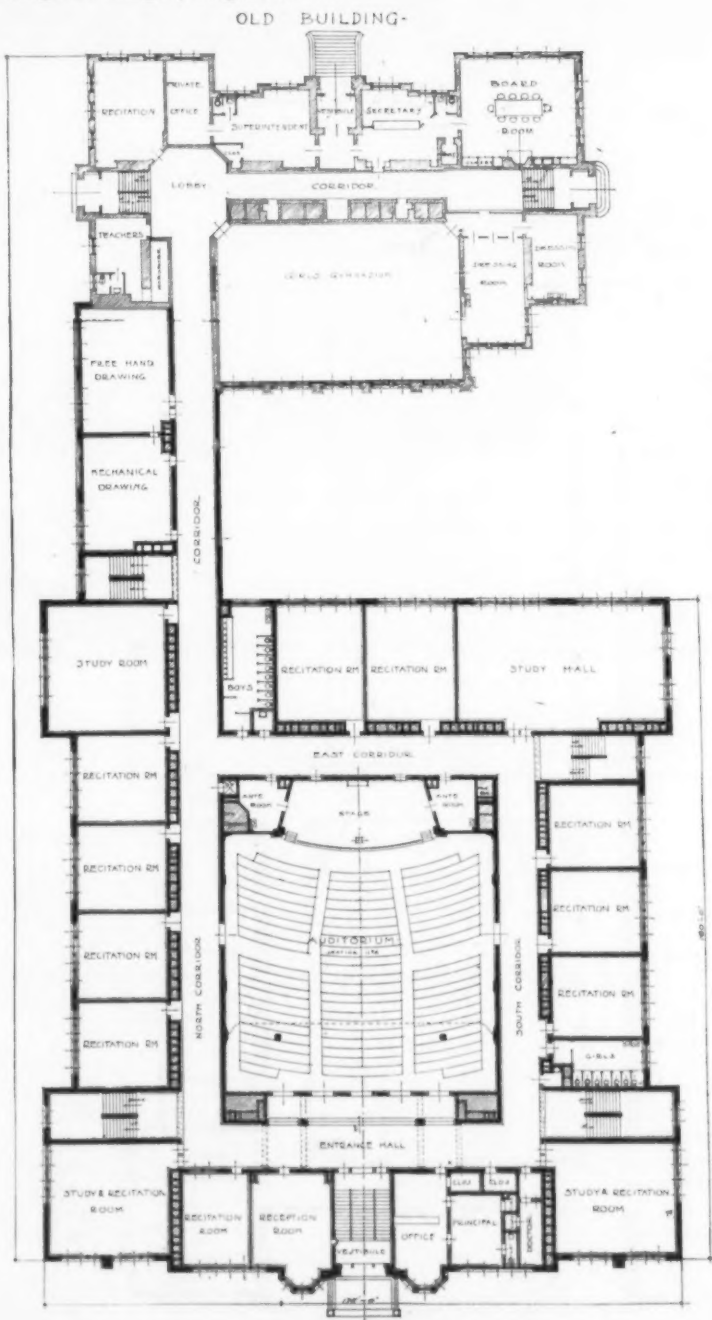




PESHINE SCHOOL, NEWARK, N. J.  
Mr. Ernest F. Gullbert, Architect; George F. Knight, Engineer.



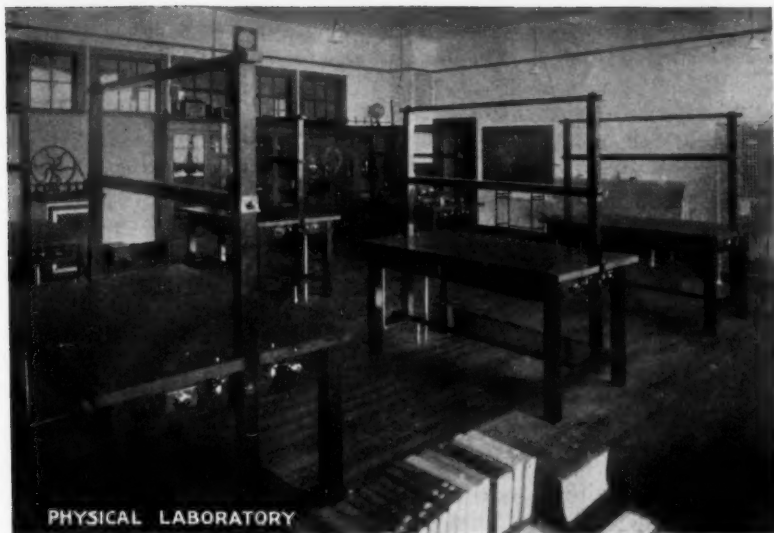
-BASEMENT PLAN-



-FIRST FLOOR PLAN-

FLOOR PLANS OF THE EAST ORANGE HIGH SCHOOL.

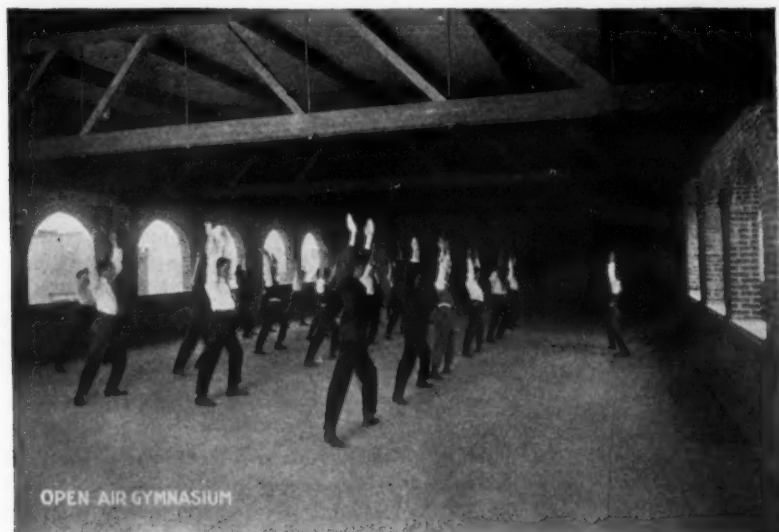




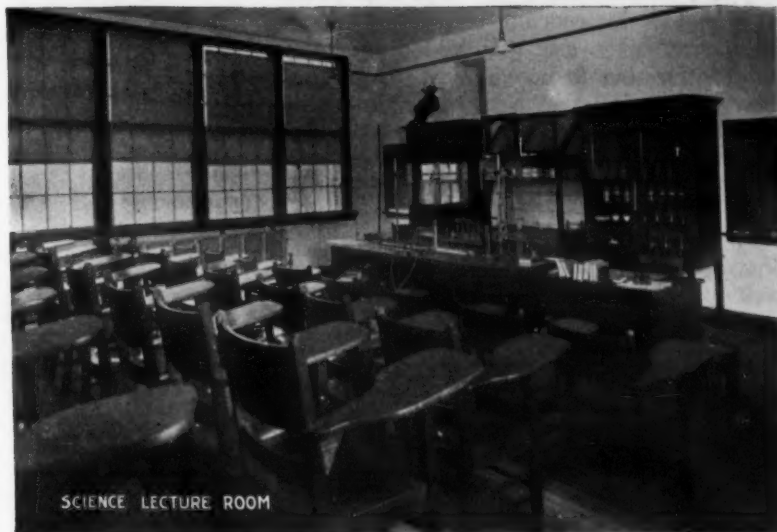
PHYSICAL LABORATORY



AUDITORIUM



OPEN AIR GYMNASIUM



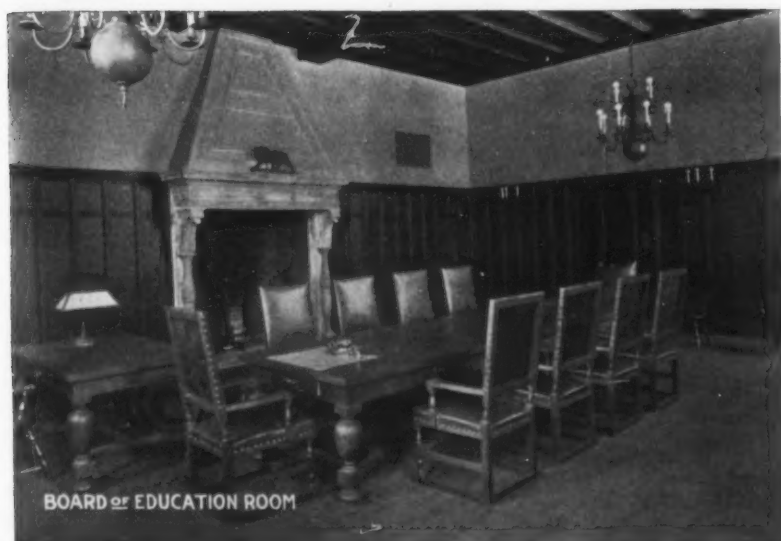
SCIENCE LECTURE ROOM



CHEMICAL LABORATORY



MANUAL TRAINING ROOM



BOARD OF EDUCATION ROOM



LIBRARY



# THE AMERICAN School Board Journal

DEVOTED TO

Legislative and Executive School Officials

WM. GEO. BRUCE, Editor and Publisher

## EDITORIAL

### GRADUATION SIMPLICITY.

Democratic simplicity will mark the graduation exercises of more high schools this spring than has been the case in many years. Literally hundreds of school boards have taken action to prevent displays of elaborate commencement gowns, flowers, carriages and other extravagances. Students in many communities have voluntarily arranged for neat, inexpensive dress and plain, simple exercises. Caps and gowns of the established academic black, or the more pleasing gray color, are to be widely used.

It is interesting to note that the vocational and manual training schools, in which sewing and dressmaking are taught, have been a considerable factor in the high school students' change of attitude toward graduation. Girls who have learned to sew seem to be anxious to display their skill with the needle by cutting, fitting and completing their own graduation gowns.

The movement for greater simplicity in graduation is one of the encouraging signs of the growing usefulness and influence of the high school; of its widening adaptation to the educational needs of all the people.

### POLITICS AND THE SUPERINTENDENT.

From cities in New England and California, and the Middle West and the South, came news, last month, of political eruptions in which the superintendents were the victims. The city of Boston saw the resignation of an able superintendent who preferred peace and a lower salary to the abuse of powerful opponents. Berkeley, Cal., has been in the midst of bitter recall election brought on by a determined superintendent who would not allow socialistic school-board members to drop him for mere political revenge. Half a dozen cities, east, west and south, have seen the dismissal of superintendents whose downfall was not due to lack of ability or inattention to duty.

The superintendency in American cities is sorely lacking in stability and permanency. Undoubtedly the condition is largely due to a lack of appreciation and understanding of the professional character of school supervision and of the evil effects of unnecessary changes in administrative officers. The laws of the various states do not sufficiently recognize the importance of the superintendent and do not safeguard his office, beyond setting a minimum standard of qualification, which in some cases, at least, is deplorably low. But not the least element in the situation is the timidity and the lack of leadership which many superintendents display in their dealings with the school boards and the citizens at large. Unconsciously, many men who rise to the head of a school system, carry the mark of their service in the schoolroom so that they lack freedom and self-reliance and that aggressiveness which is indispensable in the public official.

The superintendency in our cities must be safeguarded more than it is at present by careful legal measures and by a better appreciation, on the part of school boards, of the importance of good supervision. Public sentiment must be created for this before it can be effective. But, above all, superintendents must, as a class, do more to ensure for themselves respect by independent leadership.

### THE N. E. A. CONVENTION.

Will the convention of the National Education Association, to be held in Chicago, July 8-12, meet with the success that has attended the association's gatherings in former years? Are American teachers sufficiently interested in their profession to attend the convention, even though excursion rates are not offered by the railroads? Can the insurgents who have clamored for recognition for years justify themselves by bringing teachers in large numbers to swell the attendance? Will the old-time stalwarts show, by their appearance in Chicago, that their fight for continued and exclusive control has been unselfish, with only the best interests of the schools and of the association at heart?

President Pearse has prepared for the convention a timely program and has obtained speakers from whom inspiring and valuable addresses may be expected. The number of general sessions is to be increased to seven, and the departmental meetings are to be spread over six days so as to give every opportunity of satisfying the widest interest in educational problems. Chicago is not only a most interesting city to visit; it is of peculiar attraction to teachers because of the variety of educational experiments it is making and the high quality of its schools. It is the center for uncounted summer excursions and is accessible to the largest and best professional vacation schools.

For members of school boards, the meetings of the Department of School Administration should prove of compelling interest. President William A. Wirt has prepared a program for the discussion of efficiency in city school administration and school architecture—two phases of school board labors which have assumed peculiar importance during the past year.

While the association has weathered many storms, the situation brought on by the refusal of the railroads to grant further low rates for the summer meetings, is sufficiently serious to make every interested schoolman want to rally to its assistance. All will have an opportunity of showing how deep their interest is in education, and how solicitous they are not only for the association, but also for the schools and for their own welfare.

### SCHOOL BOARDS AND SCHOOL ARCHITECTURE.

Students of architecture find in the buildings of a city an accurate record of its history and an unflinching index to the character of its people. Although American communities can show no buildings of antiquity, their homes, factories, business houses and public edifices tell just as truly the story of their life and temper as the churches and palaces of European centers.

In the schoolhouses erected in all our large cities there is a marked reflection of the character and the purposes, not only of the citizens at large, but also of the efficiency of the school boards under whose direction they were planned and constructed. In a more or less degree, this is true of every community.

Just as an illustration, we may cite the wide difference in the schoolhouses erected in the city of Boston since the formation of the small school board and the creation of the schoolhouse commission. The older buildings, put up before the new regime, show the greatest variations in design, completeness, method of construction, equipment and cost. Accordingly as a member of the school board was influential or not, the public school in his ward was palatial or poor, adequate or inadequate. Since the coming of the small board, with its ideals of uniform development of all the schools along carefully planned lines, the new schoolhouses have been erected with an uniform, high, standard

of architectural beauty and a splendid type of construction and equipment.

The new schoolhouses at Newark and East Orange, N. J., illustrated in this issue of the Journal, tell graphically a story similar to that of Boston. The buildings have been planned by expert architects and engineers under the orders of boards of education who realized their functions and opportunities and understood the value of expert service, not only in school matters, but also in business affairs. Where formerly the schoolhouses of Newark represented every conceivable ideal and idea they now have a definite standard of excellence which they are successfully meeting.

The commission form of school board organization has been given much credit for recent administrative reforms. The physical aspect of the work of small school boards, as shown in improved schoolhouses, has, however, been generally overlooked. In this the American schools have experienced a distinct gain which has its effect upon the labors of the teachers and the bodily and mental welfare of the pupils.

### A NEW DEPARTMENT.

For several months past announcements of our Subscribers' Service Department have appeared in the columns of the Journal. This department receives requests for information of all kinds from readers, and with the coming of spring, its activities have doubled and trebled.

This invitation is written to ask our subscribers to avail themselves, to the fullest extent, of the opportunities and conveniences offered by our Service Department. As yet, we have not had a single complaint from any source on the character of the help offered; in fact, school officials from widely separated sections of the country have thanked us for the assistance given.

The peculiar character which our Subscribers' Service Department assumes should not be misunderstood. The items printed are entirely suggestive and are listed only because they are most commonly inquired about. The department is intended to be a clearing house for the convenience of school board secretaries, superintendents and other officers who frequently are at a loss how to place their official advertisements and orders in the hands of first producers and dealers from whom they can be assured of satisfactory service.

Every school official is invited to avail himself of the opportunity of the Subscribers' Service Department. With the coming of summer, school boards will generally look over their stores of supplies and equipment, and will seek catalogues, information and bids for all sorts of school materials. The Subscribers' Service Department can here render important and valuable service, in bringing together, the best manufacturers, publishers and dealers with the school board officers.

### MUSIC AND SCHOOL CREDIT.

Shall serious, well-planned study of music, under qualified private teachers, be given credit toward high school diplomas? The question has been asked by the parents of many students and school officers have been altogether without principles to guide their decisions.

Unquestionably, music is a branch of human knowledge and accomplishment that belongs in a scheme of well-rounded education. Its social and economic value has been recognized universally and practically no modern school omits it from the curriculum.

But, the public school can present the principles and the art of music only in a general, collective manner; it cannot undertake individual teaching and it cannot develop special talents or inclinations. Just as it cannot make





The World His Melon.

—Bart, Minneapolis Journal.

trained artists so it cannot make trained musicians.

But no valid reason seems apparent which will prevent public high schools from recognizing serious, purposeful study of music, undertaken privately. A few schools, in widely separated communities, are doing so without objection from state or city school officers. Some supervision over the study is had; at least the school satisfies itself that the value and the results of the work done are worthy of credit. The more general acceptance of such credit for music might well be considered by school boards.

#### SCHOOL ACCOUNTING.

While educators are generally urging better, completer and more informational statistics, a number of states have quietly introduced sweeping reforms in the accounting of district, township, county and city boards of education. Indiana and Washington may be cited as commonwealths in which systematic, uniform accounting has been forced upon school authorities with notable results.

In Indiana, alone, thousands of dollars have been saved to the schools through the work of the State Board of Accounts. Every imaginable form of abuse, from plain embezzlement to petty graft in buying postage stamps, has been found and corrected. The prices charged for school supplies have been frequently found exorbitant and have been reduced (by nearly one-half) as well as made generally uniform. School authorities have expressed themselves as generally well satisfied with the new order. The system of accounting has been found simple and complete and the checks and audits which have been arranged have relieved the school trustees of much anxiety over the integrity of the school funds. In the state of Washington the experi-

ence has been very similar to that of Indiana. While there was some complaint at first, general satisfaction is expressed at the operation of the law and the work of the State Board of Accounts.

Every state might well follow the lead of these two commonwealths, not only in the financial accounting, but also in the gathering of purely educational statistics. Teachers and superintendents, as a class, are dilatory in record and account keeping and uniformly slow in making returns. A state agency with considerable supervisory authority will not only prove of value in bringing careless teachers and officers to time; it can, also, render a direct service in unifying and rationalizing statistics and in making them true criterions for educational study.

The current discussion of motion pictures for school use is bringing out two facts. First, the average motion picture show is morally, as well as intellectually, detrimental to children when frequently attended. Secondly, motion pictures are a positive aid to instruction in geography and the natural sciences but are failures, in many respects, for teaching literature and history. There is need of much greater development of educational film libraries.

Parents and school officials who complain against the compulsory vaccination of school children should read a recent bulletin of the Michigan State Board of Health, in which the history of 283 cases of smallpox, during the first three months of 1912, is related. Of the entire number, 245 persons, or nearly 87 per cent, had never been vaccinated and five were doubtful. None of the rest had been recently vaccinated.

Secretary Shepard's official enrollment figures for the St. Louis convention indicate that 1,757 persons were in attendance. Bruce's Bulletin listed more than 1,900 names of men and women who were seen about the convention headquarters and who directly received some benefit—financial, educational or otherwise—from the convention.

Hand and Head are educated in the American public school. Now we are beginning to think of Health, but the "Heart" is still neglected.

"Usual Row at Meeting of School Board" is the significant title of a report in an Ohio newspaper. The call issued to the members of the board, in some communities, might well invite them to attend the "Monthly Row."

The new "equal-pay" legislation, by which male and female teachers in the New York City schools receive the same salaries, is drawing men out of positions in the grades. This is evidenced by the refusal of sixty-one recent appointees to accept assignments and statements from a number that they would shortly resign. Formerly male appointees received an initial salary of \$900 and were given annual increases of \$105; now they begin service at \$720 and



The Perplexing Problem of School Accommodations.

will be paid \$60 additional only after three years' successful work.

Any modern language for which there is sufficient demand to warrant the formation of a class will be taught in the Chicago high schools. Action to this effect was recently taken by the board of education, upon recommendation of Supt. Ella F. Young. At present German, French and Polish are taught, and applications have been received for Danish, Italian, Swedish and Norwegian.

The pupils of three parochial schools in Altoona, Pa., have been admitted to the manual training classes of the public schools. The board of education entered the children only after two suits had been fought out in the courts establishing the rights of children to instruction in manual training.

The industrial character of many studies which are now considered to be purely cultural, is pointed out by Superintendent W. E. Maddock of Superior, Wis., in a recent report. He writes:

"The schools at the present time offer much more work with a 'vocational trend' than many people suppose. Usually manual training is considered the only work of this kind in the schools; whereas the work in physics, chemistry and other sciences, mathematics, drawing, book-keeping, stenography and typewriting, cooking and sewing, are all industrial in their nature and should be placed on the same basis as manual training when considering the industrial side of education. In fact, nearly all the subjects mentioned above involve a considerable degree of manual training in the way of dexterity and skill in manipulation. This phase of the work should be emphasized more and more and no doubt will be."

Illinois is to have a state educational building for housing the department of public instruction, including the state superintendent of schools and his assistants. Space will also be provided for an historical museum, a lecture and assembly hall. State Architect W. Carlys Zimmerman, Chicago, is preparing the plans.



Maryland Seeks Funds for a Technological School.

—Thorndike, Baltimore American.



Graduate: Courage, Old World, Courage!

—Bradley, Chicago News.



The American Boy's Annual Tussle with Examinations.

—Westerman, Columbus Journal.



# PLAYGROUND EQUIPMENT

By THEODORE A. GROSS, Superintendent Municipal Playgrounds, Chicago

The suggestions contained in this paper are particularly applicable to playgrounds of small area and in cases where limited funds prevent the installation of elaborate facilities and expensive apparatus, equipment and accessories.

For convenience, I have classified the equipment as facilities, accessories, apparatus, and supplies.

Facilities include shelter buildings, play spaces, wading pools, sand houses, athletic fields, ball fields, and such provisions as are for the convenience of the patrons.

Accessories are fences, surfacing, drainage, planting and such things that are essential to the fullest and best use and appearance of the playground.

By apparatus is meant all forms of appliances for the amusement and physical development of the patrons.

Supplies include all baseballs, bats and bases, basket balls, footballs, stop watches, and all kinds of hand apparatus, essential in playing games, etc., including also tools and implements necessary in the care of and upkeep of the grounds.

I am not laying any stress upon the equipment involved in the supervision and administration of a playground, although it should be borne in mind that the first and most important equipment is that of a competent supervisor or director.

These suggestions are applicable to all playgrounds of two acres or less, whether neighborhood playground, school playground, or a playground conducted by private organizations.

In laying out a playground it is important to reserve certain sections or play spaces for certain groups, such as boys over ten years, girls over ten years, older boys and young men. Children of both sexes under ten years may be permitted to use the same section, but in order to effect a more satisfactory discipline and to guard against bullying and quarrelling, the other groups should be segregated and each space should be equipped with apparatus and facilities best adapted to the needs, desires and play tendencies of the group that is to use it.

## Needed Facilities.

Every playground should have an administration building, a sheltered platform and sand box, an athletic field, a ball field, a running track, a wading pool and an open play space in which is erected all play apparatus.

If the playground is square in shape, the building, including the sand house and shelter platform, should be erected in the center of the entire area with planting beds extending from the building to the fence lines at each end, dividing the area into two main play spaces. In the front half of the grounds should be placed all the play apparatus. One-half of this space should be reserved for boys and the other for girls.

In the space in the rear half of the grounds should be placed the athletic field equipped with the usual athletic and gymnastic apparatus, such as jump stands, hurdles, shot-put rings, jumping pits, horizontal and parallel bars, bucks, vaulting horses, flying rings, climbing poles, etc. This space can also be used as a small baseball field. If a running track is constructed around the edges of this field, slightly elevated, it forms a basin which can easily be flooded and used as a skating pond in winter. This portion of the playground should be reserved for the older boys and young men exclusively.

The wading pool and apparatus for the children of both sexes, under ten years, should be erected near the buildings or field house.

The building or field house need not be large (25x40 feet) or expensive, but should at least provide two toilet rooms (8x10 feet), one shower room (8x10 feet) with two or three showers, an office (8x10 feet) for supervisor and attendants, a storeroom (8x16 feet). By all means (on the second floor if possible in order to save ground space) there should be a large playroom (24x38 feet) which can be used for kin-

dergarten work, light gymnasium apparatus work, calisthenics, dancing, industrial work and other activities that require indoor facilities and where certain kinds of playground work can be carried on during inclement weather.

On one side of this field house, preferably the boys' side, there should be erected a sheltered sand box (10x16 feet) with broad sides for making pies, etc., and on the girls' side a sheltered—concrete or wood—platform (16x24 feet outside) with fixed seats or benches around the outer edges, where girls can sit in the shade and do raffia work, sew or play games, such as jacks, sky-blue, hop scotch, skip the rope and other games, peculiar to girls, which require a hard, smooth surface.

## Playground Accessories.

A substantial fence is essential, so that the playground can be closed at such times when deemed necessary. A playground without a fence may become a nuisance by encouraging or tempting children to remain out late at night, or by permitting it to be used without supervision after the caretakers have gone away.

The entrance gates should not be placed solely to make ingress convenient, but also to make exit somewhat difficult. You will find by doing this that there is much better discipline. Particularly boys are not so apt to do any mischief if they know it is hard to get away. The further the mischievous boy is removed from the gate the better behaved he is.

The surface for the space where the play apparatus is erected should be covered with sandy loam over which is spread a thin layer of finely screened cinders or torpedo sand. For the ball field and athletic field never use cinders, but a mixture of clay and sandy loam. Turf or sod is desirable even if it wears in spots, as it keeps down the dust.

The playground should be well drained with the ordinary vitrified tile sewer pipe. If the ball field is not to be used as a skating pond it should be graded with the highest elevation at the center and the drains placed at the outer edges; if field is to be used for skating pond then reverse the grading and location of drains.

The playground should be provided with plenty of shade trees, shrubbery and flowers, particularly around the outer edges and in all spaces not devoted to the play interests. Narrow planting beds of shrubbery and flowers can be made to serve as a fence in separating the different play spaces. If thickly planted they are just as effective and add greatly to the appearance of the playground.

## Essentials of Good Apparatus.

In selecting the apparatus equipment for a playground there are three important factors to be considered: The usefulness, durability, and style of construction and the proper distribution of the apparatus.

All play apparatus selected should have some gymnastic or athletic value, that is, it should require on the part of the user some degree of physical effort in order to make use of it and not only to provide amusement. Apparatus that is too mechanical is not desirable because it increases the danger of accidents, easily gets out of order and is usually of little benefit as muscle makers. It is better to have the user do the work than to have the apparatus do it.

The degree of effort required and the element of danger connected with its use, should be the guiding factor in the selection of apparatus for the different sex-and-age groups that are to use it. Apparatus suitable for a group of boys fifteen years of age may become dangerous or detrimental if same is selected for a group of girls ten years old. Some apparatus, particularly for boys, must obviously contain a certain degree of danger to be interesting, for if there is nothing in the playground to dodge he will practice on the passing automobiles and if there isn't anything to flip he will use the street car. This point is more clearly explained in the list of apparatus recommended.

## The Construction of Apparatus.

Whether playground apparatus should be of wood or of iron construction is at present a mooted question. In Chicago, we have a splendid opportunity of studying this problem, as some playgrounds use wood while others use iron or steel in the construction of most of its apparatus equipment.

Here are some of the pieces of apparatus that are now being made of galvanized iron or steel and which are held by some to be the best style of construction for playground use: Horizontal, vertical and slanting ladders, climbing poles, parallel bars and teeter ladders. These pieces of apparatus are just the ones that should never be made of steel or iron, if for no other reason than for their obnoxious effect upon the sense of touch, as these particular pieces of apparatus come in direct contact with the hands. If the least bit too hot or cold they are very disagreeable to handle and can only be used without that unpleasant effect a few months in the year. Another point against the use of iron or steel for these pieces is the tendency of metal to cause perspiration on the hands, thereby weakening the grasp, increasing the danger of injury from slipping and falling off. In the playgrounds where iron is used in the construction of these pieces of apparatus they are not used as much as in playgrounds where this apparatus is constructed of wood. I believe it is because the iron apparatus is not as pleasant to handle.

This, of course, does not apply so much to the frame work or standards for the heavier pieces of apparatus. These, if wood is used, should be made of heavy yellow pine, should be painted once every year and the top flat surfaces where rain water is apt to collect protected with a heavy tin or galvanized iron cover. The only bad feature of the wood construction is the tendency of wood to decay at the ground line because of the dampness which settles at this point. I am of the opinion that wood will last as long as iron above and below the surface of the ground, but it is the space directly at the ground line where most of the damage is done. By swabbing hot tar around the wood at this point once every year during the hot weather while the wood is thoroughly dry, it can be preserved again as long. The use of iron or steel for some pieces of apparatus is of course indispensable.

## Distribution of Pieces.

I do not believe grouping a lot of apparatus upon one large framework is desirable, because it creates too much congestion, increases the danger of accident by one piece of apparatus conflicting with the use of another, or it is used in every conceivable way except the correct way. Boys especially will swing and jump from one apparatus to the other and use the framework in playing tag or chasing each other about, interfering with those who desire to use it in the proper way.

Where each piece of apparatus is erected separately it eliminates the tendency to use the framework for climbing upon and compels the patrons to use it in the way for which it was intended. By erecting the apparatus along the outer edges of the playground, leaving the open field in the center of the ground, it distributes the patrons over a wider area, giving the director or supervisor a better opportunity for directing or teaching a particular group and of detecting from a distance any misuse of the apparatus, and lessens the danger of injury in coming in contact with the apparatus. If the space is to be used for skating in the winter months, all the apparatus will be out of the way and an unobstructed field provided.

The following is a partial list of apparatus recommended for playground use and a general description of the construction:

## Giant Strides.

(Suitable for boys and girls over 10 years of age.)

The pole should be made of cedar not less than twelve inches in diameter at the base, not more than sixteen feet in height, set four feet in the ground, well braced below the surface. The iron pole is not as desirable as the cedar because of its tendency to vibrate and snap off without warning. If an iron pole is used it

(Continued on page 32)





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(Continued from page 30)

should be reinforced with a small piece of pipe on the *inside* rather than on the *outside* where the dampness can more readily get between the two pieces of pipe, causing them to rust. The revolving, ball-bearing disk or headpiece should be constructed with projecting arm-pieces to which are attached the ropes. If these arm-pieces are suspended about eight inches from the pole at the top, they will lessen the wear and tear on the rope by preventing friction of the ropes and pole. The ladder ends should be at least twelve inches wide, so as to permit a child to use them in a sitting position; they should reach to within one foot of the ground. The stride ropes with high, narrow ladder ends require too much exertion, especially for children to use.

#### Slides.

(Suitable for both sexes.)

This is a very popular apparatus, especially for the small children. The exercise derived therefrom, while not very strenuous, is very exhilarating and there is practically no danger connected with its use. The slide board should be made of one and one-quarter inch maple, fourteen inches wide, preferably with two seven inch strips fastened together with iron dowels to lessen the tendency to split. It is sixteen feet long and the stairway is about eight feet high. To prevent the board from cracking and to insure a smooth surface it should be oiled with raw linseed or fish oil at least twice a week and turned upside down during rainy weather.

#### Lawn Swings.

(Suitable for both sexes.)

Although very innocent looking, these are the most dangerous things to have in a playground, if not properly constructed. The less mechanism the better. The uprights may be made of yellow pine and should not be over fifteen feet high. The seats and foot board should be made of maple, the car or basket suspended from one to six inches above the surface of the ground.

#### Circle Bars.

(Suitable for both sexes.)

The apparatus should be about twelve feet in diameter, the wearing parts made of hickory, the table revolving upon ball bearings and attached to the iron pipe support in such a manner as to eliminate obstructing braces underneath likely to hit children falling under the apparatus.

#### Ropes.

All rope, whether for strides, swings, swinging rings or climbing, should be made of manila hemp, braided in three strands, each strand being separately braided to insure strength and durability. Rope made of cotton or wood fiber should never be used as it breaks easily and is rough on the hands. For swings, the rope should be attached to the frame by being looped around a wooden block attached to an iron rod in such a way as to bring the wood to bear against the iron. It should be attached to the seat board so that the rope can easily be detached and reversed when it begins to show signs of wear where it is usually grasped by the hands.

#### Ladders.

(Both sexes over 10 years.)

All ladders should be made of maple because of its strength and durability. The short grain of this wood eliminates the danger from splinters and slivers. The bottom of the ladder should be anchored to a concrete base about six inches above the ground. These should be painted rather than varnished because the pigment in the paint fills up the pores of the wood.

#### Climbing Poles.

(Both sexes over 10 years.)

These should also be made of maple for the same reasons given for the ladders. The maple becomes harder from exposure and wears smooth. Its one disadvantage is the tendency to warp. I am not sure that even this is a disadvantage. Personally, I think there is more fun in climbing a warped pole than a straight one. Of course it does not look as well as an iron pole, but we place them in the playground to be used, not to be looked at. The pole may be attached to the frame or standard by an "L" pin running through a hole in the upper end of the pole so as to bring wood to bear against the iron, rather than iron against iron, which wears out more readily.

#### Parallel Bars.

(Suitable for boys over 10 years.)

The uprights may be made of wood or iron but the cross bars should be made of second growth ash or hickory, it has more elasticity, feels better to the touch and doesn't rust as do the steel bars. Care should be taken not to make them too wide, never more than 18 inches for adults, or fifteen inches for children. If uprights are made of iron, three-inch pipe should be used to insure rigidity.

#### Horizontal Bars.

(Suitable for both sexes over 10 years.)

The uprights may be made of wood or iron, the bar made of steel, one and one-eighth inches thick, and from six to eight feet wide. Steel is preferable because of its strength and because the thin bar insures a firmer grasp than does the thick, wooden bar. Whenever a wooden bar is used it should be reinforced with a steel rod through the center.

#### Vaulting Buck or Horse.

(Suitable for both sexes over 10 years.)

What to use as a covering for this apparatus is a problem. Leather is the best but too expensive for outdoor use, as it is easily ruined by exposure. Two layers of tough canvas, each layer painted and put on separately, the same finished with two coats of flexible gutta percha paint, is perhaps the most durable covering for outdoor use.

This apparatus should be constructed with four leg supports, rather than the single support type, because in missing the vault and falling head foremost the spreading legs of the buck or horse afford an opportunity to catch hold of, thereby breaking the fall. A fall forward from the single support buck is very dangerous and often, if high, results in fractured wrists and forearms.

For jumping stands, shot put rings, hurdles and other athletic and hand apparatus most any of the standard makes will be found practical.

#### Desirable Supplies.

A sufficient assortment of bats, baseballs, basket balls, footballs, jumping sticks, vaulting poles, bean bags, quoits, etc., should be kept on hand, and of course the necessary tools and implements required in the care and upkeep of the grounds and equipment.

I have not attempted to designate the number of pieces of apparatus to be placed in a given area or the amount required for a given number of patrons, as this can more easily be determined by local conditions. However, it is well to follow this principle: Where space or funds prevent the installation of a great variety of apparatus only such pieces as will accommodate a large number of patrons at one time, such as circle bars, rocking boats, lawn swings, giant strides, etc., and such apparatus as can be used in rapid succession, such as slides, etc., should be selected.

#### Good Advice on Promotions.

Superintendent Carroll G. Pearse of the Milwaukee public schools has recently warned teachers against allowing their feeling toward a boy to influence their judgment in his promotion. He said:

"The test question in determining upon promotions should be: Is it probable that the pupil, if promoted regularly or conditionally, can do the work of the higher class?"

Pupils should not be denied the opportunity for promotion because they have been disobedient or troublesome or because they have been absent or because they have not always done their best or for any other reason except the one referred to. If the pupil's standings are such that he cannot be sent in regular form and with a clear record, but, in the judgment of the teacher and principal, unbiased by any consideration as to whether the pupil has been "bad" or troublesome or irregular or disrespectful or idle, he can probably do the work of the next grade, it is the business of the school to see, first, that he has the opportunity; and second that he is sufficiently interested and has sufficiently good instruction and sufficient counsel and, if necessary, encouragement so that he will live up to the opportunity given him and do the work which lies within his capacity.

It is not only the great privilege, but also the duty of the school to so influence children that they will want to do things, have a real desire to accomplish their school work. A mediocre teacher can get good results from the well disposed, capable pupils. The better the school and the more skillful the teacher, the more nearly will it be possible to get good results from *all pupils* and to induce all children to work up to their best. A large percentage of the children who fail in school are able to do the work in which they fail if they only had enough interest in it and cared enough about doing it."





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### VOCATIONAL EDUCATION.

As a means of learning the vocational interests and aspirations of children, Supt. W. P. King, of Bellevue, Ky., recently asked 120 pupils of the seventh and eighth grades to answer the following questions:

"What line of work do you desire to follow as your life work?"

"Why do you select this work?"

"Is this your parent's occupation?"

"How far do you desire to go in school?"

"If you had your choice, what person whom you know, or of whom you have heard, would you desire to be like?"

The replies showed that of approximately sixty boys only three wished to enter a profession, while more than ninety per cent wished to become skilled workmen or machinists. The occupations most favored were those of civil engineer, electrician and railroad engineer. Seventy per cent of the boys wanted a high school education, and twenty per cent wanted a college education.

Among the girls, nearly fifty per cent wrote that they wished to become teachers, and about thirty per cent wished to teach music. Twenty per cent wanted to become milliners, fifteen per cent stenographers and ten per cent trained nurses. Half of the girls desired a college education.

Of the whole number only six chose the occupations of their parents.

The choice of the personal ideal showed an unusually catholic scope of taste. Lincoln was the personal ideal who received the greatest number of votes among both boys and girls. The boys chose also such prominent men of the day as Champ. Clark, Admiral Dewey, Rockefeller, Edison and Detective William J. Burns.

The girls chose President Taft, Rockefeller, Carnegie, J. Pierpont Morgan, Beethoven, Paderewski, McKinley, Washington, Edison, Rose Bonheur, Grant, Alfred the Great and Clara Barton.

"Whether or not," said Mr. King, in commenting on the results of the questionnaire, "the figures are typical, it is plain that the training for the majority of the pupils is not wholly in the right direction. There should be a change in curriculum to give more training along industrial lines after leaving the grades. It is necessary to begin some vocational guidance in the grades, but in the main the work should be in preparation for citizenship. It is shown by abundant evidence that school and employment must always go together.

"But whose business shall it be to keep in touch with the transition from the schoolroom to the work? It is a community problem, and, in the absence of a vocation bureau, the public school authorities must look into the matter of lessening the social waste, and furnishing information about the various occupations, and the training necessary for efficiency in them. This appears to be a distinct problem in the suburban cities of centers like Cincinnati, where the vast industrial interests lure many of the young away from the schools before they have reached the age at which mature judgment might wisely direct in the selection of a life work."

A new evening trade school for boys has recently been opened in New York City by the board of education. The institution was conducted for nine years as a private enterprise with considerable success. The curriculum of the school contains four courses of study, woodworking, plumbing, electric wiring and installation, and drawing. The woodworking classes are taught house carpentry and construction, cabinet making and bench work. The plumbing course includes instruction in lead and cast iron pipe work, gasfitting and general installation. In the drawing classes the mechanical and architectural branches are taught as well as shop drawing in connection with the work of other departments.

The term consists of ninety school sessions,

held on Monday, Tuesday, Wednesday and Thursday evenings of each week. Like the other trade schools run by the city the instructors are all practical men and trained workers. The enrollment of the school is 150, and a large waiting list has been formed.

Director F. H. Wing, of the Buffalo Vocational Schools, states that the present registration at the Peckham Street manual training school is 371, although it was the original expectation to accommodate 150 pupils there. The institution stands in the center of a group of parochial schools, with other public schools quite a distance away. The movement for vocational training in that part of the city was started by the Polish-American Business Men's Association. An investigation was made and Prof. Wing saw the possibilities of accomplishing much in a vocational way. After a campaign of two or three months the city bought the property for \$9,500, the building containing a store and storage warehouse. As the city did not get the building in readiness, the neighborhood grew impatient and was glad to use temporary quarters in a library association rooms. The quarters were very crude, one of the rooms containing a billiard table, but, in spite of the unsatisfactory surroundings, the popularity of the school is shown by the fact that within a week of its opening it had 300 students.

Kalamazoo, Mich. The school board has recently formed a vocational class for boys and a class for girls.

A public textile school will be established at Manchester, Conn. Local manufacturers have consented to furnish the machinery and some of the material necessary to equip the school.

Charles A. Prosser, Deputy State Commissioner of Education of Massachusetts, in charge of the vocational schools, has resigned to become Secretary of the National Society for the Promotion of Industrial Education. He will have headquarters in New York City.



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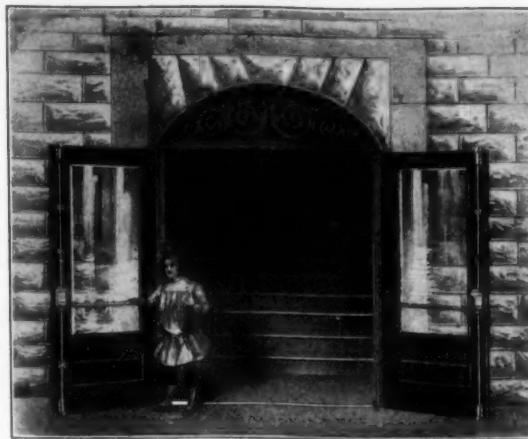
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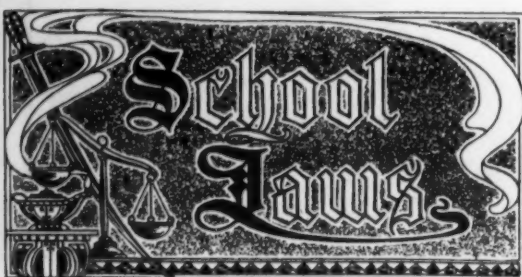


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### SCHOOL LAW NOTES.

Pupils who are tardy are considered absent under an interpretation of a new California statute, fixing the average daily attendance of pupils as the basis upon which state school funds are distributed to the school districts.

The unit of attendance in California is to be the quarter-day. And, in order to count, it must be a full unit, according to the attorney-general's opinion. If a pupil is late, therefore, one-quarter of the day must be counted off because he or she is "absent" a portion of the day.

The opinion says: "It would seem that the natural meaning of the clause, paraphrased, is this:

"Pupils present for at least one-fourth of a day, but not one-half a day, shall be counted as present for one-fourth of a day; pupils present for at least one-half of a day, but not for three-fourths of a day, shall be counted as present one-half a day; pupils present for at least three-fourths of a day and more, but not for a whole day, shall be counted as present for three-fourths of a day; and pupils present for a whole day shall be so counted."

In an opinion to Charles A. Greathouse, superintendent of public instruction, the attorney-general of Indiana has held that when a town or city school board closes the schools on account of an epidemic of disease, the board can collect tuition, where cash tuition is being paid, for the time the schools are so closed. The question arose at Greensburg, Ind., where the schools were closed for a time on account of diphtheria. Neighboring township trustees who had transferred pupils to the schools and were paying tuition, held they could not be charged for the time the schools were closed.

The school board of Kansas City, Mo., and its workings may be separate and distinct from those of the municipality, but its employees are under city jurisdiction, so far as licenses, where necessary, are concerned. That was decided by Judge Latshaw, recently, in the Kansas City District Court, when he affirmed a fine of \$25 against John Fee, an engineer employed by the school board. Fee was fined in the municipal court and appealed. His contention was that the city ordinances did not apply to employees of the school board.

Albany, N. Y. Attorney-General Carmody, on March 15, rendered an opinion holding that members of the board of education of the city of New York are not officers of the city of New York. He says the board of education is charged with duties relating and pertaining to an administrative branch of the state government.

In the discharge of their functions, its members are not responsible to the city in any respect, and its employees are not subject to the direction and control of the city, but are under the direction and control of the board of education.

Dental inspection is permissible under the Illinois school law, according to a recent opinion of State Superintendent F. G. Blair. In Joliet the school board questioned its power to permit local dentists to examine the teeth of pupils.

The Michigan supreme court, in an opinion handed down recently, upholds the right of the Detroit school board to issue bonds in excess of the bond limit of the city, fixed by the charter at two per cent. The court says the city charter gives notice that the educational system of the city is included and that taxes and bonds for schools and education purposes are not for city or municipal purposes. It is declared that the school district is a separate public corporation from the city corporation, and authorizes the issue of bonds as asked.

An educational commission has been appointed by the governor of the new state of New Mexico to codify all the old territorial school laws and to suggest such changes and additions as are necessary for conforming them to the state constitution.

A bill to increase the membership of the Boston school committee (school board) from five to nine persons was defeated late in March by the lower house of the Massachusetts legislature. The debate on the bill brought out the political motives back of the desired change.

Schools of the state of Kansas may use supplementary textbooks, according to a decision of Judge C. A. Smart in the district court at Lawrence, Kans. The judge denied the petition of the state for a permanent injunction prohibiting the local school board from using additional books to supplement the state-adopted series.

### RECENT DECISIONS.

Rules of boards of education made under authority of the Missouri revised statutes of 1899, section 9764, must not be inconsistent with the requirements of the state constitution (art. 11, sec. 1), but may make proper regulations which operate uniformly, even though they temporarily deprive some pupils of school facilities.—State ex rel. Ranney v. School Dist. of City of Cape Girardeau, Mo.

Upon the approval by the federal government of a survey of the interior lines of a township, the state's title to a section in question vests absolutely.—State v. Ball, Neb.

### School Districts.

Under the Connecticut general statutes of 1902, sec. 2177, school districts are not permanent corporations, but are quasi corporations of a public nature, with limited statutory powers.—Hassett v. Carroll, Conn.

Under the Connecticut general statutes of 1902, secs. 2175, 2177, school districts may be formed, altered or dissolved by the towns within the limits of which they exist, and are subject to regulation by such towns.—Hassett v. Carroll, Conn.

Under the Illinois laws (Hurd's revised statutes of 1909, c. 122, secs. 34, 46, 47, 52, 53, 54), where a petition to create a new school district was regularly executed and presented for hearing at the regular April meeting of the board of

trustees at which no quorum was present, the board did not lose jurisdiction, but was authorized to grant the same at the adjourned meeting.—People v. Nelson, Ill.

One part of the education law cannot be complied with in establishing a separate school district thereunder and another part rejected, but the whole law must be complied with.—People ex rel. Merrill v. Cooley, N. Y. Sup.

If a school district was dissolved and consolidated with another district, an action could be maintained against the former treasurer of the dissolved district as an individual to recover funds in his possession which formerly belonged to the dissolved district.—Board of Education of Union Free School Dist. No. 1, Town of Ossining v. Storms, N. Y. Sup.

Where a school district has been organized under color of statutory authority, its corporate existence and the rights of the trustees to exercise their functions cannot be inquired into in a collateral proceeding to restrain a threatened levy and collection of taxes upon the property of plaintiffs.—Coffman v. Goree Independent School Dist. (Texas Civil Appeals).

### School District Government.

Notwithstanding Education Law, sec. 880, the courts may review a decision of the commissioner of education at the instance of a citizen whose vested or legal rights are injured thereby.—People ex rel. Merrill v. Cooley, N. Y. Sup.

Adjournment of a regular meeting of school trustees in the exercise of discretion will not be reviewed, in the absence of a showing of an abuse of power.—People v. Nelson, Ill.

Members of board of education held not individually liable on a contract, payable out of the tax levy for a future year, even though the contract is void for want of power.—Coberly v. Gainer, W. Va.

### School District Taxation.

Under the Washington laws (Rem. & Bal. Code, sec. 4446), the indebtedness of a consolidated school district within the constitutional limitation held to be measured by the value of the taxable property within the district and the amount of the debts of any of the districts composing the consolidation.—State v. Clausen, Wash.

A school district is not a municipal corporation, within the laws of Idaho (art. 7, sec. 6), prohibiting the legislature from imposing taxes for the purpose of any municipal corporation.—Fenton v. Board of Commissions of Ada County; Independent School Dist. No. 1 of Kootenai County v. Board of County Commissioners of Idaho.

### Teachers.

Under the Kentucky act of March 24, 1908 (Kentucky statutes, sec. 4426a), and Russell's statutes (secs. 5610a-5610b 8), a county board of education is held to be a proper party defendant to a suit by a school teacher for unlawful dismissal.—Mock v. Board of Education of Nelson County, Ky.

A resolution of the San Francisco board of education requiring teachers to reside within the city limits held reasonable exercise of power, under the city charter (art. 7, c. 3, sec. 1).—Stuart v. Board of Education of City and County of San Francisco, Cal. The same resolution of the San Francisco board of education is held not to be invalid as imposing qualifications upon teachers in excess of those prescribed by the California school laws (secs. 1791, 1793).

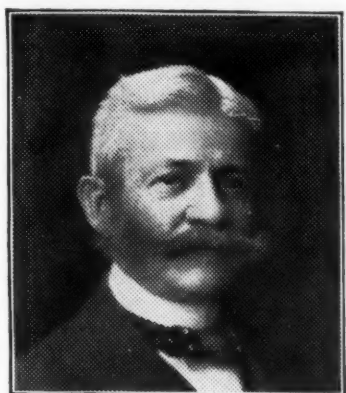
A contract between a music teacher and a school is terminated by the teacher's resignation.—White v. Board of Regents of Normal School, Dist. No. 2, Ky.



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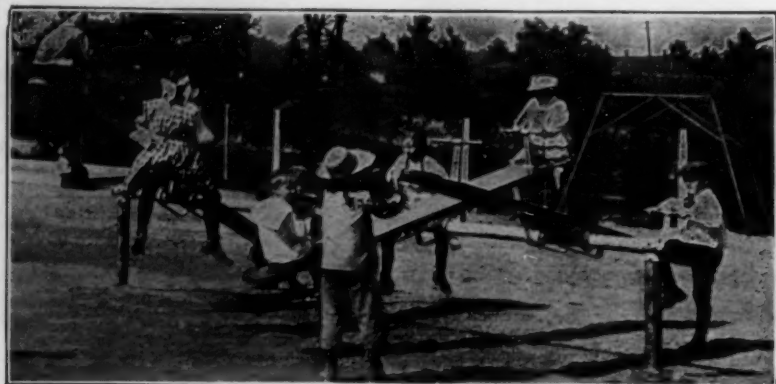
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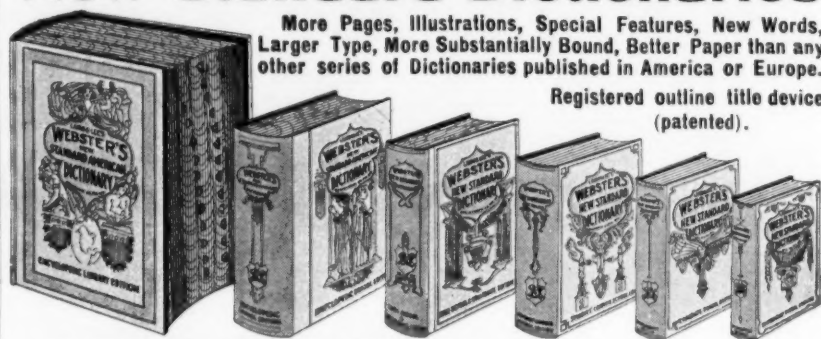
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#### New Commissioner for Porto Rico.

Mr. E. M. Bainter, principal of the Central High School at Kansas City, Mo., has been appointed Commissioner of Education for Porto Rico by President Taft. He succeeds Edwin G. Dexter on July 1st.

Mr. Bainter is one of the best-known school men in the state of Missouri and has had considerable experience as a teacher and principal. He was born in Grundy County, Missouri, in 1869 and received his early education at Grand River College. He took special work in education at Harvard and began his teaching career at Trenton, Mo. In 1896 he came to Kansas City as instructor of mathematics in the Central High School and in 1892 was chosen as assistant principal of the school. In 1910 he became principal of the Central High School.

The work of the Commissioner of Education in Porto Rico is one of large responsibility and large opportunity. It was first headed by Superintendent Martin G. Brumbaugh of Philadelphia and has since been occupied by several strong school men. At present the greatest work to be done is the organization of trade and manual training schools and the general uplift of the elementary and rural school system. Aside from the salary of \$4,000 and residence, the position carries with it a seat in the upper house of the Porto Rican legislature.

#### Mr. Potter to St. Paul.

Milton C. Potter, of the Pueblo (Colo.) public schools, has been selected by the St. Paul board of education as superintendent, to succeed S. L. Heeter.

Mr. Potter is a native of Michigan and received his early education in the schools of that

state. He studied successively at Albion College, in Europe and in the University of Chicago. His first experience was as a grade teacher and principal in the Oak Park School at Chicago. He went from there to Superior, Wis., and was superintendent of the Superior schools for five years, resigning to become the head of the schools at Idaho Springs, Colo. In 1908 he was elected superintendent of schools at Pueblo, Colo. His present term of office does not expire until 1914, but the Pueblo school board has agreed to release him.

#### BUSY SUPERINTENDENTS.

The vigorous campaign for school improvement which the Philadelphia school board is waging with the assistance of Supt. M. G. Brumbaugh and the supervising corps is beginning to bear fruit. At the March meeting of the board a resolution was adopted ordering the courses of study of the manual training high schools to be rearranged so that these schools will be of the first-class under the Pennsylvania school code. The three-year courses will be abandoned shortly and full four-year courses, with certificates admitting to any college, will be offered.

Supt. W. O. Riddell of Des Moines has been re-elected.

Supt. C. H. Barnes of Ely, Minn., has resigned to become head of the public schools of St. Cloud, Minn.

Supt. C. C. Root has been recently re-elected unanimously for his third term as head of the Bismarck public schools.

William Aldrich, superintendent of the Keokuk (Ia.) public schools, has been re-elected.

Educators of the state of South Dakota are urging the establishment of summer training schools for teachers which are now conducted in the various counties. They urge that four or six weeks of well-planned class work are more effective than a hurried two-weeks' institute. The state should be divided into districts and summer schools should be held in the normal schools, etc.

The Latin classes of the Crawfordsville high school have recently begun the publication of a monthly school paper in Latin. All material printed consists of brief notes of the school and short themes presented in the Latin classes. The paper is called "Libellus Latinus," and has as its motto "labor omnia vincit."

Upon recommendation of Supt. J. A. Shawan, the Columbus, O., board of education has passed a resolution prohibiting extravagant display at the annual graduation exercises of the high school. While caps and gowns will not be worn the girl graduates have been prohibited from using carriages or appearing in expensive dress. Flowers and presents are also barred.

Principal Thomas F. McSherry of Clinton, Mass., has been elected superintendent of schools for Holyoke, Mass. He will succeed Mr. John L. Riley, who has been in charge of the schools during the past three years.

The Toledo high school seeks to assist pupils and graduates to find employment. A card index of all the pupils who are seeking work has been formed and business men are invited to send inquiries when in need of employees.

The Chicago school authorities have recently refused to admit into the high schools several young men who had been expelled from the Oak Park high school for membership in a secret society. Superintendent Young held that no one should be entered as a student who violated a rule of the board of education.

Supt. Don C. Bliss, of Elmira, N. Y., has been elected superintendent of the Montclair, N. J., schools with a salary of \$6,000 per year. Mr. Bliss is a native of Vermont and was graduated from Dartmouth College with the degree of A. B., and gained the title of A. M. in Columbia University. For nine years he was located in Arlington, N. J. Five years ago he accepted a call to Brockton, Mass., where he filled the office of superintendent of schools very efficiently, serving three years.

Two years ago he was invited to Elmira, N. Y., to reorganize the school system. In this





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work he was so successful that the Montclair school board selected him.

Supt. Wm. F. Ramey, of Chickasha, Okla., has been unanimously re-elected for the next school year. This will be his fifth year in charge of these schools. Mr. Ramey is recognized as one of the leading educators in the state.

Dr. Henry Snyder, superintendent of schools of Jersey City, N. J., has been engaged recently to make a survey of the high-school situation in Harrisburg, Pa. Dr. Snyder is acting for a committee of the Harrisburg Board of Trade and is investigating the need for greater high-school facilities, including the problem of erecting a new building.

Supt. D. H. Christensen, of Salt Lake City, Utah, has been re-elected for a two years' term by unanimous vote of the board of education. Dr. Christensen has been at the head of the Salt Lake schools for six years and has done notable work in reorganizing the entire system.

Mr. J. M. White has been re-elected superintendent of the public schools of Carthage, Mo.

Semi-annual promotions and graduations are to replace the annual plan now in use in the Fitchburg (Mass.) high school.

William A. Wirt has been re-elected superintendent of schools at Gary Ind., for a term of three years. Mr. Wirt will receive a salary of \$6,000 per year, the largest amount paid in a community of Gary's size.

Newark, N. J. The school board has determined recently to open summer classes in twenty-nine buildings. Sessions will be held daily from July 8 to August 16, and special emphasis will be placed on manual training, cooking, sewing, etc. Twenty-three vacation playgrounds will be conducted under the auspices of the school board.

Supt. S. Henry Wolfe, who is completing his twelfth year of service as superintendent of the public schools of Minot, N. D., was recently unanimously re-elected for three years and his salary raised for each succeeding year.

Wichita, Kan. A rule recently promulgated by Supt. G. W. Kendrick provides that pupils in the grades and in the high school who attain an average standing of 85 per cent in their class work are to be exempted from all promotional examinations. A mark of 75 in any one study will, however, necessitate an examination in that branch.

W. S. Booth, formerly superintendent of the city schools of Mt. Carmel, Ill., has recently become assistant superintendent of public instruction for Illinois. Mr. Booth was superintendent of the schools at Mt. Carmel for thirteen years and is one of the well-known educators of the state.

Forewarning of the possible doom of the long midsummer school vacation period in the public schools of Newark, N. J., was given last month by the public school authorities by the action of the committee on instruction of the board of



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education in adopting a recommendation of City Superintendent Poland to make the experiment of the all-year-round school terms. The test will be made in the Belmont and Seventh Avenue schools.

The idea of the school heads is to extend the full-year system to the schools generally, if the experiment proves successful. In that event the present term of ten months, divided into semesters, will give way to four quarterly terms of twelve weeks each.

Also, the present arrangement of vacations, with nine weeks in midsummer, a week at the Christmas holidays and another week just preceding Easter, will be replaced by four vacation periods of one week each. It will mean, too, that the total number of school days in each year will be increased from the present number, which is about 192, to 230 or more.

Principals Gleason of Belmont avenue, and Pitkin of Seventh avenue expressed their approval of the plan of Dr. Poland and said they were willing to make the test. They added that they were assured that a strong teaching staff, ample enough to give the plan a thorough trial, will volunteer for the work. Under all these conditions the committee decided to recommend the experiment to the board.

Prof. Bruce Francis, who has been at the head of the Cedar Falls public schools for the past three years, has been re-elected for another year by a unanimous vote of the board. His salary was raised from \$2,000 to \$2,100.

Sweeping changes in the methods of appointing teachers in the Pittsburgh schools have been foreshadowed by recommendations received by the board of education from Supt. S. L. Heeter and the committee on rules. The plan suggested by Mr. Heeter provides for a new normal school in Pittsburgh, to which only graduates of a four-year high-school course will be admitted. The graduates of this school are to have the preference when appointments are made. Severe tests and much experience are to



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be required of the graduates of all other schools and colleges.

The board has not taken final action on this report, as, under the rules, it must lay over a month.

The rules, if adopted, will provide that graduates of state normal schools who hold state normal diplomas shall be eligible to appointment after five years' teaching experience without any additional examination. They shall be given precedence over all others except the graduates of the proposed Pittsburgh training school for teachers. Other graduates of normal schools and graduates of colleges are required to submit to examinations to be held semi-annually in the months of June and December. An average of 75 per cent with a minimum of 65 per cent in any one subject is to be required in these examinations.

No person is to be appointed a principal who has not had at least five years' successful teaching experience. High-school teachers are required to have permanent college certificates and three years' experience is to be required for teachers and five years for principals. Substitute teachers are required to have certificates under the school laws of Pennsylvania and be recommended by the superintendent of schools. Teachers of such subjects as art, manual training and domestic science are exempted from the requirements of other teachers, but are required to show evidence of having pursued adequate courses.

The school board of Concordia, Kan., has recently re-elected Supt. C. C. Brown for a third term.

Supt. A. G. Crane of Minot, N. D., has resigned.

The Buffalo Schoolmasters' Association has made plans to aid children in the selection of

life work best suited to them. A committee of 26 members has been appointed, which is divided into eight sub-committees, whose work covers a wide scope. Facts will be secured regarding safe, remunerative and educative industries, bibliography on vocational education will be prepared, and both parents and children will be informed by men of standing in various lines of business as to the qualifications needed for success as well as the sort of training that is essential. Not only will advice be given, but an effort will be made to secure employment.

Supt. L. H. Minkel of Fort Dodge, Ia., has been re-elected at a salary of \$2,350.

The school board has recently re-elected Supt. O. S. Jones and has increased his salary to \$2,750 a year.

Two departmental schools have been in operation in Louisville, Ky., since September, 1911. They centralize the seventh and eighth grades of a considerable section of the city and are, according to the school officials, proving entirely satisfactory. Whether they will be helpful in bridging the gap between the grades and the high school is to be watched next year with considerable interest.

C. A. Green, now state inspector of high schools, and a former school superintendent, was recently chosen as superintendent of the Webb City (Mo.) schools, to succeed R. S. Nichols, who has held the office for seven years.

Charles P. Megan, assistant superintendent of the Chicago public schools and special secretary to Mrs. Ella Flagg Young, has resigned. On March 1st he entered a law firm.

The bill permitting the increase of the salary of Supt. Henry P. Emerson of Buffalo has passed the New York state legislature and has been signed by Governor Dix. It now goes to the common council of Buffalo. It is expected

that an increase will be made from \$5,000 to \$7,500.

Commissioner A. S. Draper has announced that the dedication exercises of the New York State Educational Building will take place October 15-17, 1912. The magnificent new building, which houses the state education department of New York, the state library and the state museum, is rapidly nearing completion. In fact, some parts of it are already occupied. It will be entirely ready by spring. The magnificent white marble structure is the first of its kind in the United States, and it is expected that the dedication exercises will be of a character in keeping with the importance of the structure.

## Mr. Fairchild to Retire.

State Superintendent E. T. Fairchild of Kansas has recently announced that he will not be a candidate for re-election to the office which he has filled so ably during the past six years. It is generally accepted that Mr. Fairchild has been one of the most energetic and successful state superintendents in the country. His work in behalf of the country schools has not only been beneficial to his own state, but has been influential in drawing attention to rural conditions in every section of the country. Among the direct improvements which he has introduced in Kansas are:

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Mr. Fairchild has not announced any plans for the future. His present term will not expire until January 1, 1913.



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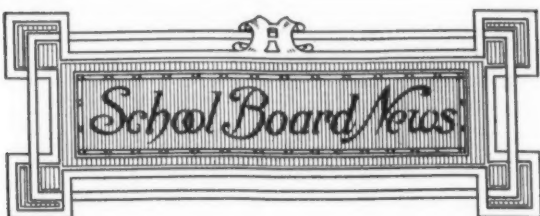
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The school boards of Maryville and Sedalia, Missouri, have ordered that graduates of the high schools wear caps and gowns at the graduation exercises.

The Oakland, Cal., board of education has recently re-affirmed its determination to establish intermediate high schools to which pupils will be admitted from the sixth to the ninth grades inclusive. The local district attorney has ruled that the schools will be legal even though they are a combination of two classes of schools provided for in the state laws.

The Philadelphia board of education has taken steps, recently, to broaden the scope of the high schools and complete the curriculum of each of the existing institutions. Ultimately it is proposed that complete college preparatory, vocational, commercial and manual training courses will be offered in each school. The Central manual training school has been consolidated with the Central high school so that the latter institution is no longer a strictly college-preparatory school.

The office of superintendent of school property has been created by the school board of Portland, Ore. An experienced man has been employed to take charge of repairs and maintenance.

Following the annual reorganization, the school committee of Cambridge, Mass., has shorn the superintendent of practically all of his powers for independent administrative activity. In the past he had full authority to appoint teachers, select textbooks and revise the courses of study, subject only to the final

approval or disapproval of the committee. The new rule just adopted confers these powers of the superintendent jointly on a sub-committee of three members of the board.

Providence, R. I. A movement has been started for the reduction of the membership of the school board which now numbers thirty. A small committee of five or seven is suggested.

A systematized effort to beautify yards of Chicago school buildings will be made during the present spring. The board of education has recently decided to employ an expert for-ester and landscape gardener, and to spend approximately \$170,000 in the improvement of school grounds. The new official will be paid a salary of \$2,000 a year and will be under the direction of the secretary.

Hartford, Conn. The school board has recently ordered that the graduates of the high school be garbed in gray caps and gowns during all the commencement functions.

The Minneapolis school authorities have recently prohibited the miscellaneous collection of old magazines and newspapers in the schools because of the menace to health. The gathering of old papers is a means employed in some of the elementary schools for raising funds. The school authorities hold that there is not much danger if the pupils bring only clean papers from their own homes but object to rubbish gathered from miscellaneous sources.

Kankakee, Ill. Caps and gowns of gray material will be worn by the graduates of the high school.

The St. Louis board of education has recently appropriated the sum of \$10,000 to be used in the conduct of vacation review schools during the coming summer. These schools were first opened in 1911 and have proved so successful in their results that the board has determined to extend their usefulness in accordance with the recommendations of Supt. Ben Blewett. Reports from principals of schools having pupils from the vacation review schools show that the work was of marked and permanent aid to a

very large per cent of the children who took either review or extended work.

To prevent children who are unfitted for work from receiving labor certificates, Supt. S. L. Heeter of Pittsburgh has requested the board of education to establish an examination system. All children who reach the age of fourteen and have not yet completed the grades should, before being permitted to leave the schools, be subjected to a mental examination by a practical psychologist and a physical test by a physician. Dr. Heeter believes that such tests are the most effectual means of preventing the large losses in school enrollment in the upper grades. It will, at least, hold those who are not ready to enter some field of child labor.

A law recently enacted by the Massachusetts General Court (legislature) places in the hands of the Holyoke school board the control of janitors, matrons and other persons employed in the school buildings. Formerly the cleaners and engineers were employed by the board of public works, and considerable friction was aroused by contested powers, duties and privileges of the various supervising authorities.

Radical changes in the form of organization and method of selection of the school board for Orleans parish, Louisiana, embracing the city of New Orleans, were suggested at a meeting of the Public School Alliance in New Orleans, April 15. The Public School Alliance is an organization composed of teachers, prominent citizens and others interested in the welfare of the public schools. The changes suggested will be drafted into a bill and presented to the legislature of Louisiana which will meet in May, and as the incoming administration is believed to be friendly to the proposed changes it is expected that they will be adopted.

The changes suggested are: That the school board be composed of five members, two of whom shall serve for two years, two for four years and one for six years. The present board consists of seventeen members. To avoid an election for the first members of the board, the new board



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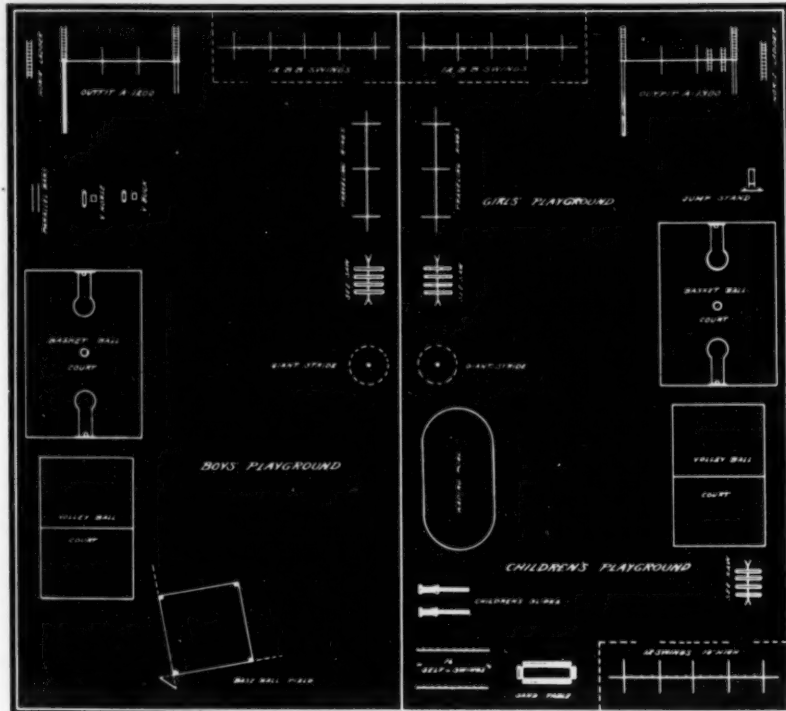
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is to be appointed by the governor, but after 1914 the board is to be elected.

Qualifications for a member are that he must be a voter, except in the case of a woman, must have a high-school education or its equivalent, and must not hold any other office under the state, parish or city, either of honor, trust or emoluments, or be employed in any public office, or in any position depending upon the appointment of any public officer.

The constitution of the state is to be amended so as to permit women on the school board.

The members of the board are to be subject to recall by popular vote, such election to be held upon a petition being signed by thirty per cent of the voters of the last general election.

That a permanent school construction fund be established, to be started at \$200,000, with provisions for its increase as the city grows and the school system demands more schools. That the parish of Orleans be exempt from the provisions of the state textbook law and the school board be permitted to choose its own texts and also to supply textbooks free of cost to all pupils.

Joliet, Ill. The township high-school board has ordered that caps and gowns be worn at the annual graduation exercises.

The elementary school buildings at Milwaukee, Wis., have been named according to the streets upon which they front. Formerly they were numbered according to the wards in which they are located, but a complete redistricting of the city caused complete confusion and led the board to act. A suggestion that the buildings be named after famous men and women was rejected upon the argument that the titles should give a clue to the location of the buildings.

Iowa Falls, Ia. The board of education has announced that future graduates of the high school will wear caps and gowns, the apparel to be furnished by the board and to be of a gray color. This action was taken to forestall a repetition of rivalry which has existed in the

past among graduates regarding the elegance of their graduating clothes. Similar action has been taken by the board of education at Eldora, Ia.

That a school district in the state of Washington has no specific authority by law to maintain summer schools for backward children, or for children of greater mental capacity who wish to make up extra grades, is the ruling of Assistant Attorney-General Lyle, in an opinion given to H. B. Dewey, superintendent of public instruction, last month.

The statute specifically provides that there shall be a three months' vacation between June 1 and September 15, and therefore the districts cannot maintain summer schools unless the state legislature sees fit to pass a special law providing for such.

The question arose in Spokane County, where the board of directors wished to maintain a

summer school, the teachers to be paid by the school district.

The abuse of the telephones in the public schools of Waco, Tex., has recently led Supt. J. C. Lattimore to limit their use to three periods from 8:30 to 9 a. m.; from 12:30 to 12:45 p. m., and from 2:45 to 3:15 p. m. Parents have been requested not to call the schools except on business relating directly to the schools. Only important private messages will be delivered to pupils.

Citizens of Philadelphia have begun a movement for the erection of small, plain high school buildings placed in each of the principal outlying districts and accommodating, approximately, 600 students. The policy of the board has been to put up palatial schools in some central location for 1,200 or more students. This plan, it is urged, has distinct disadvantages in management and prevents many from attending because of the long distances which must be traveled.

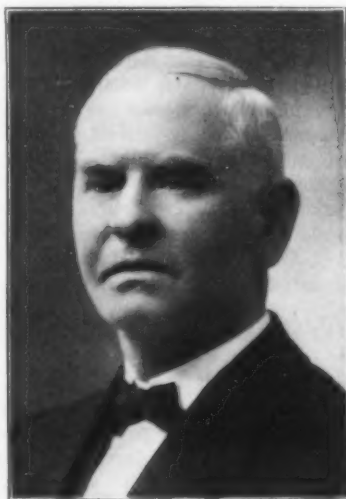
The school board of Duluth, Minn., has granted an increase in salary to practically all of the teachers employed in the grades. Such as received a rating of exceptional efficiency from the principals and supervisors will receive \$50 additional next year. Such as did only good work will be increased \$25.

### THE PRESIDENT OF THE BOARD.

(Concluded from Page 16)

baggage checked ahnd get ahn withoot teahring yohr clothes ahr chripping ahny oov the by-sthanders. The people want ahn average mon weeth gude sinse enough to ruin ahl the new fangled nootions over the schreen, lit the foin stuff fahl thru ahnd keep the gude beeg lumps.

"Will, noo, Mr. Kindill, Oi moost be going home, boot we'el talk thees oover again. Gude night, Mr. Kindill, ahnd coom around in a few days. I shall want to see you again about some other matters."



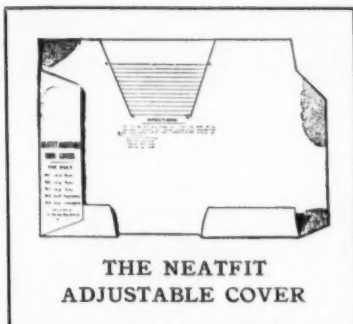
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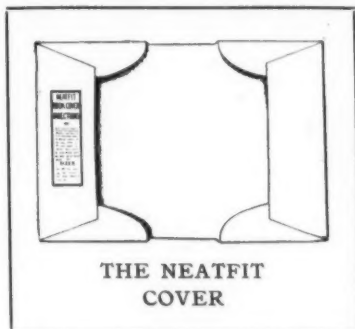
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## THE UNITED STATES BUREAU OF EDUCATION.

(Concluded from page 15)

to foster and promote their physical, mental, and moral health.

i. To conduct investigations and experiments in order to ascertain the best organization of a rural school with one teacher.

j. To investigate the value of labor in childhood as an educative agency.

This list of proposed appropriations could be easily extended. Each should also provide for the giving of advice to State and local officers.

Within the past two years the Bureau of Education has made small beginnings into some of the investigations listed above. Its limited efforts serve only to throw into greater relief the vast possibilities that lie just ahead. Private foundations, universities, and individuals are now doing much work that the government could do better and more economically. Some public school systems have so high an appreciation of the value of some of this work that they are paying private individuals to do it for them.

Assistance, investigation, and experimentation by a national education office are needed almost, if not altogether, as much in the fields covered by universities, colleges, normal schools, schools for the delinquent, dependent, and defective, and other schools, as in the fields of the elementary and secondary schools. Lack of space forbids a detailed statement regarding these phases of the subject.

Under the organic act the Bureau of Education has sufficient authority to perform all these functions that should be discharged by a national education office. Men and women to do the work have been and still are available. Appropriations by Congress in the proper form and in the requisite amount alone are lacking. In the first place, there should be "lump sum" appropriations. Secondly, in the beginning they

should cover only a part of the field that lies immediately before, and should be extended to other subjects as soon as the first are established. Thirdly, a fixed policy of increasing from year to year the total appropriations, and the different parts of the same, as they are needed, should be laid down in order that the administrative form and practice of the bureau may be developed most wisely and the best men and women be induced to enter its service. If such plans could be realized, I venture to predict that the increased national wealth and happiness resulting from these benefits would many times repay its cost.

Finally, it is to be noted that in the performance of the duties mentioned above, the bureau would interfere in no way with the State and local school officers. Its function would be to supplement and to assist their efforts by giving them a better knowledge of conditions elsewhere, by revealing to them with a nearer approach to fulness their own situations, and by advising them regarding the best courses of procedure. The legal authority for the conduct of schools must always remain in the State and local officers. But to perform their duties most effectively, these officers need the knowledge and the counsel that a well-supported and efficient national education office may bring to them.

### TEACHERS' SALARIES AND PENSIONS.

The school committee of Somerville, Mass., has increased the salary of all elementary instructors in its employ \$50 per year. The maximum salary by the act of the committee becomes \$750.

The Chicago board of education has recently fixed the maximum pay of kindergarten directors at \$1,175 in place of \$1,075. All kindergartners in the employ of the board will receive a substantial increase. Assistants will be paid salaries ranging from \$650 to \$950 and directors will be paid from \$950 to \$1,175.

Somerville, Mass. The school committee has recently revised its salary schedule so as to give all the teachers and principals in its employ an increase of \$5 per month. The new maximum salaries are as follows:

Principals, eight-room buildings, fifth year, \$950; principals, six-room buildings, fourth year, \$875; principals, four-room buildings, fourth year, \$825; masters' assistants, fifth year, \$825; first eight grades, seventh year, \$750; ninth grade, sixth year, \$775; head kindergartners, sixth year, \$650; assistants not in charge of room, fifth year, \$475; sewing teachers, sixth year, \$750.

Kansas City, Mo. The school board has recently revised the salary schedule so as to grant an increase of 20 per cent to all teachers in the service.

The new schedule raises the salaries of the \$825 teachers to \$1,000, the \$500 teachers to \$600. First year substitute teachers will get from \$300 to \$420. The salaries of principals will be raised on the ratio of 20 per cent.

The board of education of Nyack, N. Y., has recently adopted a schedule of salaries as follows: Maximum for high school, \$900, an increase of \$50; for departmental teachers of 7th and 8th grades, \$800, an increase of \$100; for 5th and 6th grades, \$750, an increase of \$50; for kindergarten and primary teachers of the first four grades, \$700, no increase.

The salaries of the principals were raised, but no maximum was fixed.

The salary of Superintendent E. J. Bonner, who was elected for the fifth year in Nyack, was increased to \$2,500.

Grand Forks, N. D. The minimum monthly salary of inexperienced teachers has been increased by the school board from \$45 to \$50 per month.

The school committee of Everett, Mass., has recently fixed the minimum salaries of women heads of high school departments at \$800 and the maximum at \$1,000. Formerly these instructors were paid only the regular salary.





## New Books for the Grades



### FIRST YEAR IN NUMBER

By FRANKLIN S. HOYT,  
Formerly Assistant Superintendent of Schools, Indianapolis,  
and  
HARRIET E. PEET,  
Instructor in Methods of Teaching Arithmetic, State Normal School,  
Salem, Mass.

Illustrated. Price, 35 cents, net. Postpaid.

This attractive book, through pictures, simple games, easy constructive work, and interesting drills, gradually reveals to pupils their need of number, and gives them a clear understanding of number symbols and a mastery of the simple arithmetical processes. This mastery of the early steps will lay a sure foundation for the successful study of arithmetic in subsequent years.

### The Houghton Mifflin Text Books in History

#### A History of the United States—for Grammar Grades

By REUBEN G. THWAITES,  
Of the University of Wisconsin, and  
C. N. KENDALL,  
Commissioner of Education for the State of New Jersey.

With numerous illustrations.

This text-book combines to an unusual degree accurate scholarship, interest, and a most suggestive and helpful teaching equipment. It will raise the standard of history teaching wherever used, both in city and in rural schools.

#### An Elementary History of Our Country

By EVA MARCH TAPPAN.

Illustrated. Price, 65 cents, net. Postpaid.

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## Book Reviews

### American School Third and Fourth Readers.

By Kate F. Oswald and C. B. Gilbert. Third book, 244 pages. \$0.40, net. Fourth book, 319 pages. \$0.45. The Macmillan Co., New York, Chicago.

The Third and Fourth Readers of the American School Readers of Oswald and Gilbert appear to be very well graded. The illustrations are fanciful and yet clever and calculated to attract the children for whom they are intended. The type is large and clear, and the selections, I believe, are unusually suitable for the grades intended.

### The Century and the School.

By Frank Louis Soldan, late superintendent of the St. Louis public schools. 206 pages. Price, \$1.25, net. The Macmillan Co., New York, Chicago.

These essays of Frank Louis Soldan, late superintendent of the St. Louis public schools, are well worth the careful reading for their intrinsic merit. They consist of eight essays: The Century and the School; Morality and Education; What Is a Fad? Teachers' Duties; Educational Ideas in Dickens' Novels; A Visit to German Schools; Reading in the Higher Grades, and Folklore and Fairy Tales. The selection covers a wide range of related thoughts, and exhibits the late educator in his many-sided touch with developing youth. His treatment of the subjects is that of a critical though sympathetic student of school plans and methods.

### Laboratory Problems in Physics.

By Franklin T. Jones, University School, Cleveland, Ohio, and Robert R. Tatnall, Northwestern University. 81 pages. Price, \$0.50, net. The Macmillan Co., New York, Chicago.

These experiments are very handy and useful for high school work; no other commendation is needed, as the authors are in high standing as teachers of physics. Any textbook may be used in connection with this manual and the equipment needed is very reasonable.

### Tymon of Athens.

By William Shakespeare. Edited by Charlotte Porter and Helen Clarke, 163 pages. Thos. Y. Crowell Co., New York.

Today "Tymon of Athens" is not put upon the stage. Many who claim to read Shakespeare much and often have not read this play. Yet E. A. Abbey has made for it some of his rare illustrations; five critics group it with Macbeth, Othello, King Lear. The slow reading demanded

by the quaint spelling of this first folio edition causes the strength and passion of the play to penetrate the mind. In variety and quality the editorial work is fully equal to that of the earlier issues.

### Experiments in Educational Psychology.

By Daniel Starch, University of Wisconsin, Madison. 183 pages. Price, \$0.90, net. The Macmillan Co., New York.

A quarter of a century ago an advanced principal remarked to an assistant, "When we find out how many times a pupil must repeat a fact to learn it, much time will be saved." The assistant listened respectfully, said little, but afterwards did a deal of thinking. There were bright, average, slow pupils. She knew about how much time must be spent upon a topic by the average pupil—her main objective point—but finding out how many times they must go over facts to learn them was hardly practical or practicable. Today psychologists are subjecting groups of minds to carefully thought-out experiments and are carefully recording the results of these tests. Mental laws may perhaps be deduced later.

This volume marks the trend of educational thought in this direction. The experiments in the opening chapter have a three-fold purpose: first, to show the nature and amounts of differences in mental abilities between individuals; second, to determine to what extent mental ability in one direction is accompanied by ability in other directions; and third, to demonstrate simple and accurate means of measuring mental functions. Since so much depends upon normal conditions of the eye and ear, in the following chapter several tests for determining whether or not defects exist are minutely described. In Chapter V the trial-and-error method of learning is discussed and illustrated, as it is important that teachers should know its nature and meaning, its fundamental importance in the development of child life, what school exercises are learned largely or wholly by this method. All this leads up to the rate of improvement. Here the points to be settled are (a) the general rate of improvement; (b) whether the improvement progresses at a uniform rate; (c) whether there are periods of improvement and retardation, and (d) the effect of a long interval of rest. In the interesting substitution test, one group of ten should work for ten minutes at a time, twice a day, with an interval of at least five hours between the periods. The second group should work for twenty minutes once a day, and the third group should work for forty minutes every other day. Each person should continue the work for six days. Here length and frequency of working periods are factors in the results of the test. In the transference of training the point to be made clear is, how much power gained through training in one direction helps when taking hold of new work. To a non-professional reader the tests under this head are odd, even eccentric, and difficult. In the results the percentages are low.

Under attention, four laws are demonstrated: the law of (a) intensity, (b) contrast, (c) clearness of comprehension, (d) counter-attractions. In the field of memory the practical problem is, How can we memorize or learn in the most economic manner? Indeed, the aim of all this absorbing work is greater efficiency.

### Civil Government.

By Edward Schwin, Philadelphia, Pa., and W. W. Stevenson, Philadelphia, Pa. 368 pages. J. B. Lippincott Co., Philadelphia, Pa.

This is a revised issue of a textbook that has stood the test of wide use in the classroom under greatly varying conditions. The newest edition contains few material changes in form or text. Statistics and tables have been brought up to date and several recent changes in governmental practice have been noted by the addition of separate paragraphs.

### Indian Stories.

By Cicero Newell. Cloth, 191 pages. Price, \$0.50. Silver, Burdett & Co., New York.

Recent juvenile literature has given more attention to the American Indian than at any time during the past fifty years. While much of it has been excellent, but few of the books have had the advantage of being truth at first hand. The authors have rarely lived among the Indians for any length of time and have written only from what they have read or heard. The present book is the work of an Indian agent in the government service, who has lived and worked among the Indians for upward of thirty years, and has grown to love and respect them. Many of the stories which he tells have never been reproduced in form for children and others are distinctly new. His descriptions of Indian life are vivid and correct and cannot fail to interest children. The book is illustrated with upward of fifty reproductions of photographs and drawings and is beautifully printed.

### A Hand-Book of Health.

By Woods Hutchinson. Cloth, 356 pages. Price, \$0.65. Houghton Mifflin Co., Boston.

This book has been published to meet the demands for a physiology which shall put anatomy in the background and shall place particular emphasis upon hygiene and sanitation, upon correct living and upon sanitary surroundings. The author has done more than any other living writer to make the study of hygiene and health attractive to the general reader. In the present book he likens the human body to an automobile which is given to every man for his journey through life. In the opening chapter he argues that physiology is quite easy and interesting and that a knowledge of it will help every person to live a more happy and useful life. Unlike most other books on hygiene the author makes much of right conditions and discusses illness only secondarily. His theory that correct living and good living and good health are much more attractive than insanitary conditions and bad health

(Continued on page 44)



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(Continued from Page 42)

is quite an attractive one and should win general recognition. The book can be recommended not only for supplementary, but also as a basal text. It is illustrated with numerous diagrams and photographs and is reproduced in the best style of the Riverside Press.

#### Selections from the Riverside Literature Series.

Fifth grade, 218 pages; sixth grade, 222 pages; price, each, \$0.40. Houghton Mifflin Co., Boston.

Reading as taught in the upper grades of the elementary schools, during the past decade, has exhibited a curious contradiction of theory and practice. Everywhere there has been a demand that the reading of children be limited as much as possible to complete examples of our choicest literature, and still the texts used in the classroom have been, almost wholly, made up of brief, "scrappy" extracts from long or short works. The situation has been in part met by the use of supplementary books and separate annotated texts found in the numerous literature series. This remedy, while complete, has been at best, an expensive and wasteful one. It has suggested the compilation of the present readers made up of choice material found in the two hundred volumes of the Riverside Literature Series. In the selection and omission of material, the editors have been guided by a complete knowledge of the needs and preferences of schools in all sections of the country, based upon the reliable information afforded by the sale of the Riverside volumes in recent years. Certainly we have never before seen so much of the best literature compressed into single school readers.

#### Schulhaus und Heimat.

By Otto Winter. Boards, octavo, 161 pages. List & Von Bressendorf, Leipzig.

While this volume contains very little of direct value for the American schoolman or architect it will prove interesting in giving a splendid insight into present theories and tendencies of German school architecture. As its subtitle indicates, the book discusses the question of "home protection." It is a plea for the reproduction in German school architecture of the old, homely styles of the fatherland. Thus the book presents not only examples of the most modern adaptations of the classical styles of architecture as seen in the large cities, but also those peculiar types of buildings which have for centuries been found in the German countryside. These vary from the high, tile-roofed Friesian buildings in Schleswig-Holstein, and the white, thatched buildings in Bavaria, to the half-timber schools of Hessen and the low, wooden chalets of the Tyrol.

The book contains a suggestion for American architecture. Our country schools are, as a rule, of the cheapest and most ugly design and construction. Instead of forming points of interest in our rural landscape they are frequently blots on creation. Our builders have not yet learned the lesson, which this book again and again repeats, that the commonest building material found in any locality can be wrought into pleasing, eye-satisfying forms. If we cannot build the old structures which are indigenous to Germany and other European countries we can at

least put up well-proportioned and modestly ornamental buildings. Possibly in years to come we shall develop an architectural style all our own but until then, we can adapt the old forms to our needs and purposes.

#### Europe.

By James F. Chamberlain, Los Angeles State Normal School, and Arthur H. Chamberlain, Pasadena, Cal. 256 pages. Price, \$0.55, net. The Macmillan Co., New York, Chicago.

The authors have endeavored to prepare a book which shall be more of a supplementary geography than are the existing travel-readers. In working out their plan they have not materially reduced the interest quality of the book but have produced a geographical text of considerable completeness and value. The countries described in order are, the British Isles, France, Belgium, Holland, Germany, Denmark, Sweden, Russia, Spain, Portugal, Italy, Switzerland, Austria-Hungary. Splendid use is made of comparisons with North America and the United States in discussing the position, surface, climate and human conditions in the countries treated.

#### The Improvement of Rural Schools.

By Ellwood P. Cubberley, Leland Stanford University. 73 pages. Price, \$0.35. Houghton Mifflin Co., Boston.

This little book is chiefly valuable for the very compact and vivid statement of rural school conditions and the very forceful arguments which it makes for greater funds, consolidation and centralization of schools and better supervision. The recommendations for the organization and functions of county school boards are particularly good.

#### The American Government.

By Frederic J. Haskin. School Edition. Cloth, 398 pages. J. B. Lippincott Company, Philadelphia, Pa.

This book is a distinct novelty as a supplementary school reader. What it lacks in orderliness and academic style it more than makes up for in vividness of description, completeness of detail and uniqueness of viewpoint. It is not designed as a treatise on the science of government nor as an exposition of the peculiar political structure of the United States. It is rather an effort to tell in the ordinary language of everyday life what the government of the United States does and how it does it. It omits altogether the treatment of theories and principles of government, and touches very briefly the chief functions of the various departments. Just as in everyday life the routine of work of governmental departments takes up by far the greatest amount of time and interest on the part of officials, so this book goes into extended detail about the very common and ordinary tasks of the president and all of the various bureaus and departments in Washington.

The various chapters of the book were originally reproduced in a series of American newspapers for which the author is a special writer. All of them have been re-written and have been submitted to an important official in the government service in each of the departments or

branches described. It is, therefore, a reasonably dependable source of information and can be read in schools with little danger of misinformation.

The language of the book is altogether colloquial, and from a school standpoint, leaves much to be desired. It has the merit of vividness and forcefulness and will, undoubtedly, be better understood by children than many of the high-flown and involved expressions of more academic books. It is well worth having in every school library as a side-light on our government.

#### TEXTBOOK NEWS.

Chicago, Ill. The school board has added to the authorized list of high-school textbooks Becker-Rhoades' Elements of German (Scott-Foresman) and Hale's First Latin Book (Atkinson).

Chicago, Ill. The board of education has adopted for use in the evening schools the following books: First Lessons in English and First Reader for Foreigners (A. B. C.); First and Second Book in English for Foreigners and English for New Americans (Silver); English Book for Foreigners (Flanagan); New Reader for Evening Schools (Hinds).

The first publication of the new Ives-Butler Co., a "First French Book," is being placed in the hands of teachers. Mr. Ives was the Heath manager in Chicago.

The firm of Johnson, Blagden & McTurnan have opened a western office at Indianapolis, Ind. Mr. Lawrence McTurnan is manager with headquarters at 2219 N. Alabama street.

Worcester, Mass. The school committee has recently adopted Walton and Holmes' arithmetics (Am. Book) and Wentworth-Smith arithmetics (Ginn).

Defiance, O. Adopted Wentworth & Smith's plane geometry (Ginn) for the high school.

Auburn, N. Y. Adopted Winslow's geography reader (Heath) book two, and Wooley's Handbook of Composition.

"The Friendship of Nations," by Lucile Gulliver, published by Ginn and Company the first of April, is significant of the growing sentiment in America in favor of peace and arbitration. The book is intended for younger readers and aims to give in an interesting fashion the achievements of the world in art, science, commerce and industry, the purpose being to show the debt of each country to the others. The author also traces the growth of friendly relations between countries, giving special attention to the story of the Hague conferences. Her little book will be found a very readable and illuminating history of peace.

Ellen M. Cyr (Smith), whose methods have revolutionized the teaching of reading and literature in the grades, is to publish a "New Primer" (Ginn and Company) this spring, embodying her latest ideas—"play lessons" and nursery rhyme dramatics—and copiously illustrated with drawings in color by Ruth Mary Hallock. The Cyr readers have long been on the list of educational best-sellers, having sold into the millions of copies.





The recent consolidation of the sales forces in America of the Remington, Smith Premier and Monarch Typewriters is an event of the deepest importance to every student and operator of the writing machine.

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# STANDARDIZATION OF JANITOR SERVICE.

(Concluded from Page 18)  
Results in Connersville.

The foregoing brief summary calls attention to the fact that in addition to cleaning there is a possibility of definite standards of janitorial service in connection with ventilation, light, humidity and temperature. Now permit me to return to my own situation and to record what we have accomplished during the past two years in regard to schoolroom temperature and cleaning, and the means employed to obtain the results.

The schoolroom temperature has been reduced from a variable ranging from 70 to 80 degrees to a close approximation to a constant at 68 degrees Fahrenheit. This has been accomplished through special attention to the matter and requiring a report on alternate weeks showing the temperature at five chosen times throughout the day. The record is made by pupils in upper grades.

A janitor's schedule fixing standards and organizing the work at each building has been most effective in securing results in cleaning. The schedule varies slightly with different buildings. The janitor's schedule for our central building is as follows:

1. *Yard.*—Papers picked up daily, walks swept daily, morning. Ropes for May-poles and swings put up before 8:00 A. M.
2. *Scrubbing.*—Scrub all toilet floors and urinals twice per week. Wash seats with warm water, gold dust, and coal oil—Wednesday and Saturday. Scrub gymnasium once per week—Monday A. M. Once every six weeks scrub halls and school room floors—Monday.
3. *Woodwork.*—Once a week wash door knobs, hand rails, banisters, with warm water, gold dust, and coal oil—Saturday. Once every six weeks wash other woodwork—Thursday.
4. *Walls.*—Brushed down every six weeks.

Downstairs third week, upstairs sixth week.

5. *Sweeping.*—All school room, hall, toilet and basement floors swept daily with dust-down and brush—evening.

6. *Dusting.*—Done with cloth dampened with water or coal oil. Desks, doors, window sills, and base boards dusted daily. Pictures, doors and window casings, once a week—Friday evening.

7. *Blackboards* cleaned each Saturday and troughs swept out daily.

8. *Windows* washed, inside and out, twice per month with Bon Ami or alcohol.

This schedule secured improvement immediately. Any janitor who took an interest and pride in his building welcomed it. It set a standard and systematized his work.

## Definite Rules Necessary.

It is not effective to require that the building be kept "in sanitary condition." Whether it is original sin or an acquired tendency, janitors when left to do things "as needed" or "as often as necessary to insure sanitary conditions," show a decided preference toward toasting their shins in front of a furnace rather than cleaning windows, walls, woodwork and floors,—in halls, closets and unoccupied rooms. They prefer to leave this work for the annual cleaning period on extra pay during vacation. As janitors are usually paid there is no objection to the extra remuneration, but objection is made to the filthy, disease-breeding conditions resulting, and in which children must live.

Recently the plan of requiring a regular report on the cleaning was begun. The report is made at the close of each six-week period. It covers washing windows, scrubbing floors, cleaning woodwork, etc., and requires the signature of the teacher in the room. This report keeps the work constantly before the janitor, teacher, and principal, and brings a summary regularly to the attention of the superintendent. It is

safe to say that in the cleaning phase of our janitor work, we now get fully twice as much work from the same force of janitors with no increase in cost of service.

These measures—definite schedules and regular report—have brought results "of which we do know." Dr. F. B. Dresslar of the United States Bureau of Education, has called attention to a recent development in the way of further improvement and standardization of janitor service. It is the selection of a head janitor centrally located who shall instruct other janitors in details of the work with the notion of bringing the poorest up to the standards of the best.

My investigations and experience justify the following conclusions: *First*,—there is a surprising absence of standards in janitorial service. *Second*,—being physical and manual, almost every phase of janitorial service lends itself readily to standardization. *Third*,—increased efficiency of janitor service and more sanitary conditions for the child follow quickly upon standardization. *Fourth*,—a regular system of reporting aids in maintaining the efficient service required by the established standards.

(Address, Department of Superintendence, St. Louis, February 29, 1912.)

I desire to express my sincere appreciation of the School Board Journal, regarding it, as I do, as one of the very best educational publications of the entire country.—F. M. Bralley, Superintendent of Public Instruction, Texas.

The School Board Journal is pre-eminent in its field and we shall look for it eagerly every month for the suggestions which it offers in the way of adequate school supervision.—A. N. White, Santa Fe, N. Mex.



## THE MOTION PICTURE AN EDUCATIONAL POWER

The moving picture is rapidly becoming a dominant factor in the educational field, one of its latest advocates being Dr. William H. Maxwell, Superintendent of the New York Public Schools.

In New York City there are at present forty-five recreation centers established in its school houses, and Dr. Maxwell has recommended to the Board of Education that these be equipped with motion picture apparatus.

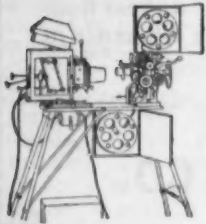
The motion picture is educational as well as amusing. It holds the child's interest, making of study a pleasure; and it teaches through the eyes; the child sees the subject, and it becomes photographed indelibly upon the memory.

Pictures must be clear and without flicker, else the subject is not faithfully reproduced; headache and eye strain resulting.

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### SCHOOL HYGIENE.

The Boston board of health has announced the results of a medical examination of the children enrolled in the elementary schools. The examining physician found that about 65 per cent, or exactly 53,503 children, are physically defective. The greatest number of cases are due to bad teeth, throat and nose troubles.

New Orleans, La.—The parish dental association and the city board of education have recently agreed upon a plan by which the dentists will examine the teeth of all the children enrolled in the schools. A free clinic has been established for such children as cannot afford to have their teeth treated.

Dental examination of the pupils enrolled in the Racine (Wis.) public schools has revealed the fact that 987 children have perfect mouths, while 2,345 need treatment for cavities or other defects of the teeth. As a result of the notices sent to parents, 539 children are undergoing treatment since the examination.

An open-air school is contemplated at Schenectady, N. Y.

The fourth international congress of school hygiene will be held in Buffalo on August 25 to 30, 1913, the date having been definitely fixed at a meeting held in Boston early in March. Dr. Charles W. Eliot, president emeritus of Harvard, is president of the congress. He is now in China, but it is possible that he will attend the Buffalo meeting. This will be the first session of the congress in America, and it is expected that several thousand delegates will be in attendance, many of them from Europe. The program will be arranged by the American School of Hygienic Association. The general expense of the convention will be about \$15,000, which will be provided for both by dues and the receipts from industrial exhibits at the congress. Scientific exhibits will be made and manufacturing firms will also make displays. Cardinal Gibbons will be invited to become a vice-president of the con-

gress and the President of the United States to become a patron.

New Orleans, La.—The New Orleans board of education has recently accepted the offer of the Louisiana State Dental Society for free oral examination of the school children. The dentists will make a complete examination of the teeth of all pupils in the public schools and will make complete reports to the board and to the parents of the conditions which they find and the treatments which may be necessary.

Provision has been made by the Wisconsin state board of normal regents for engaging the services of a woman physician to spend proportionate time in each of the state normal schools, her main duty being to look after the physical welfare of the women students by means of medical examination and by consulting with and prescribing for those who may need her services. A physical director for men students in each of the normal schools has been employed. Heretofore the physical director for women, herself a woman, has also had charge of the physical training of the men.

### Encyclopedic Library Edition.

Laird & Lee's Webster's New Standard American Dictionary, Morocco, marbled edges, patent thumb indexed, 1,400 pages. Price \$5.00. Laird & Lee, publishers, Chicago, Ill.

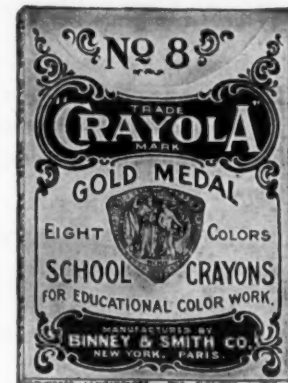
At the time of this writing the world is appalled with the news of the greatest maritime tragedy of modern times. The wireless plays a most important part in the story. We turn to our Encyclopedic Library edition of the Laird & Lee's Webster to the word "wireless" and behold a full page of plates greets us. The book was published before the date of the accident, so that the plate belongs to the original volume.

We turn to the word "wireless" and find there a definition of the term, the Wireless Telegraph Key, a drawing of the Cabot Tower, Signal Hill, Newfoundland, the point where Marconi received the first wireless telegraphic message across the Atlantic from Cornwall, England, on December 11, 1901. The expression and its derivation are given the usual explanation and we have just

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And so it is with the entire dictionary. Modern from cover to cover without a doubt. It is not a graveyard of antiquated terms and illustrations, but an up-to-date dictionary designed essentially for the common uses demanded under ordinary conditions.

In fact, this is the chief idea of the dictionary. The type, the definitions, the twelve additional dictionaries are all arranged with utility in mind. Added to these the size and the weight of the book have been planned to increase its facility in use, thus compressing all necessary material in one portable volume.

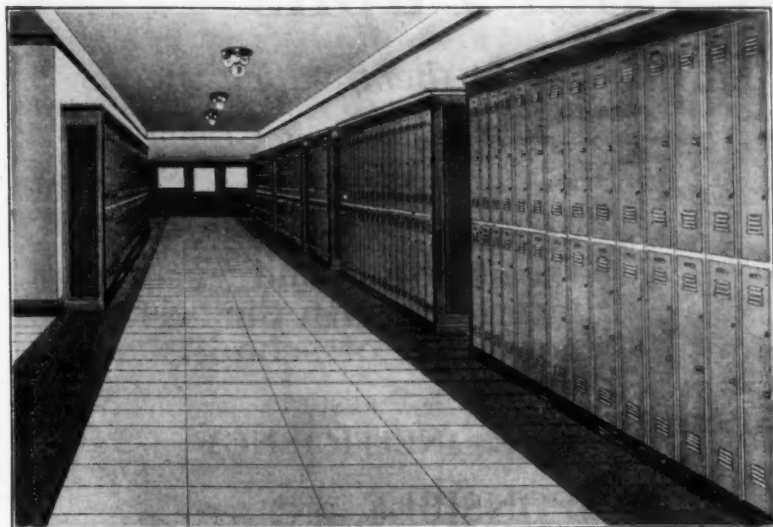
The editorial work shows great care and years of study. The mechanical make-up is superb in several ways. The type size is good. The illustrations are excellent. There is a certain modern atmosphere about the whole that is delightful. The full-page plates, of which there are twenty-five in all, are divided into eleven in colors and fourteen in black and white. They comprise such modern ideas as previously referred to, namely, wireless telegraph, and the automobile, aeroplane, styles of lettering, English and Grecian coins, motion-picture machine, etc., etc.

Mention must also be made of the twelve additional dictionaries of encyclopedic character appended to the volume. These comprise a dictionary of geography, a dictionary of mythology and a pronouncing dictionary of biography, dictionaries of foreign phrases, fictitious characters in literature, familiar allusions, maxims and proverbs, biblical names, Greek and Latin proper names, language of flowers, law terms and pseudonyms. They are most appropriately introduced by headings which are unusual in character.

All in all, this is a remarkable book. The underlying ideas are excellent. The working plan has been brought to a scale which should meet with popular approval. The persons for whom dictionaries are published and the persons whose use will ultimately decide the value of the book are evident on every page. The Encyclopedic Library edition will mark a milestone in the progress of America's dictionary making.



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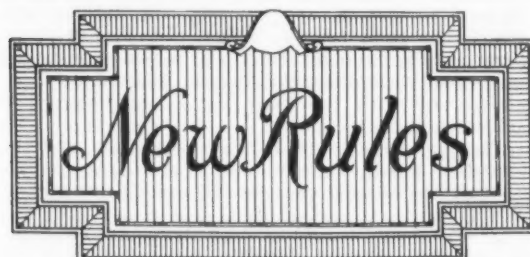
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Portland, Ore. The school board has recently adopted a rule intended to fix the responsibility for the proper use of schoolhouses. It reads:

"Applications for use of any school building of this district for other than school purposes must be made in writing to the board of directors. Such applications must state the time or times, and occasion or occasions, when such building is to be used, the designation of the organization desiring its use, the name and addresses of some responsible persons who will be answerable to the board for the care of the building and the payment of expenses incident to its use."

New Bedford, Mass. The school board has recently adopted the following rule to govern the meetings of its committee on salaries and expenditures:

"The proceedings of the committee shall be open to the public and all votes relative to recommendations of the awarding of all contracts shall be taken viva voce by ye and nay vote duly recorded upon the records of the meeting. All bids on contracts for supplies or repairs shall be opened by and contracts recommended by the full committee on expenditures."

A further rule forbids all executive sessions of sub-committees.

The Boston school committee has recently adopted a rule making ineligible for promotion for one year janitors who fail to accept a desired transfer. Considerable trouble has been caused by janitors seeking a change of building and then asking to be permitted to remain in their old position.

A rule recently adopted by Dubuque public schools provides that no examinations be given for determining the promotion of children in grades below the fifth. In the upper classes the semi-annual tests will count one-fifth in making up the markings.

The school board of District No. 1, Pueblo, Colo., has recently adopted a rule requiring all teachers to submit to a physical examination before appointment. The rule applies, not only to new teachers, but also to all present members of the corps. The immediate reason for the board's action is the number of applications received from tubercular teachers who seek positions in the schools.

The Denver board of education has recently ruled that married women shall not be employed as teachers. In a report, received by the board from Superintendent C. E. Chadsey, it is shown that teachers who get married while in the service, usually ask for a year's leave of absence but do not resign. Two out of three never return even though their names are carried on the teachers' lists.

The Philadelphia board of education has recently adopted a rule permitting bookmen and agents of supply houses to visit the schools. The rule reads:

"Agents or other persons shall not be permitted to visit the schools for the purpose of influencing the purchase, order, or use of books, supplies, or for any other commercial purpose, or for the purpose of taking a picture of buildings or pupils; provided, however, that agents of publishers or manufacturers whose books or supplies are regularly listed for use in the schools, by action of the board of public education may, when duly authorized by card issued and signed by the superintendent of supplies, visit the principals of schools as follows: Between the hours of 12:15 and 1:15 P. M., and after school hours of any school day, without appointment; and during the months of November and December during school hours, only by appointment with the principal."

The board of education of Poughkeepsie, N.

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Annapolis, Md.	Irrington, N. J.	Hoboken, N. J.	Royersford, Pa.
Lansford, Pa.	Spring City, Pa.	Lehigh, Pa.	E. Petersburg, Pa.
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## COLLEGES AND NORMAL SCHOOLS

Lehigh University, S. Bethlehem, Pa.	Girard College, Philadelphia, Pa.
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State Normal School, Millersville, Pa.	Public Library, Hanover, Pa.
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Y., has recently adopted the following resolution to govern and simplify the graduation exercises:

In lieu of speaking by members of the class, a speaker of some distinction will be secured for graduation day, at the expense of the schools.

In each graduating class an honor list of ten students will be established, to be composed of those attaining the highest mark in the class. These ten will be listed as follows:

First on the list, first honor; second on the list, second honor; the remaining eight names to be arranged alphabetically.

At a meeting of the high school graduating class, the following action was taken by the students:

1. That no presents for graduates be sent to the opera house. If such presents are sent, they will not be distributed until after the exercises are completed.

2. That all flowers sent to the opera house for the graduates will be placed on a table on the stage, and distributed.

3. That each girl shall wear a simple and inexpensive dress.

4. That the expenditures in general be made as low as possible.

## COMING CONVENTIONS.

May 9-10-11. American Federation of Arts at Washington, D. C. L. Mechlin, assistant secretary.

May 10-11. Association of Public Superintendents of Connecticut at Meriden, Conn. Edgar C. Stiles, vice-president.

May 13-17. County superintendents of Missouri at Jefferson City, Mo. D. W. Clayton, Mt. Vernon, Mo.

May 30-31. National Society for the Study and Prevention of Tuberculosis at Washington, D. C. Philip P. Jacobs, assistant secretary, New York, N. Y.

May 29-30-31. Northwest Music Teachers' Association at Whitman College, Walla Walla, Wash. Elias Blum, president, Walla Walla.

June 5-8. Playground and Recreation Association of America at Cleveland. H. S. Brancher, secretary, New York, N. Y.





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To the Mental Child

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RESULT

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## School Administration

### A BRIEF OUTLINE OF WHOLE CLASS, GROUP, AND INDIVIDUAL INSTRUCTION.

As Used in the Public Schools,  
Pocatello, Idaho.

By Supt. Walter R. Siders.

#### I. Definition of Terms:

A. By *Whole-Class Instruction* is meant teaching the whole class as a unit.

B. By *Group Instruction* is meant teaching a portion of a class as a unit, or teaching two or more classes combined as a unit.

C. By *Individual Instruction* is meant teaching pupils according to their individual needs, supplying thereby such definite instruction and suggestion as the whole-class and group instruction does not afford.

D. *Subject-Portion*: Each subject divides into heads, sub-heads, these into divisions, these into sub-divisions, etc. The complete phase of a sub-division to be taught as a lesson (or a number of lessons) is here named a "Subject-Portion."

#### II. Method of Teaching:

##### A. METHOD OF HANDLING THE SUBJECT MATTER.

1. Emphasis upon teaching a subject-portion at a time even if several lessons are demanded to cover it. This for the sake of clearness and correlation.

2. First Development Lesson: In the first presentation of a subject, only such general facts and principles are presented as are essential to getting a general grasp of the principle idea in the "subject-portion."

3. Further Development Lessons: In subsequent presentations, the details are presented, developed, and the necessary exercises connected therewith are worked out.

4. Finally—after details have been thoroughly developed, a return is made to the concrete whole as presented, in the "First Development Lesson."

5. The reason for this procedure is the principle that there can be no conception of the correlated parts without a correct conception of the concrete whole.

##### B. METHOD OF DEVELOPMENT.

1. The methods of the Study-Recitation are followed, whereby the Study-period, and the

Recitation-period are combined as much as possible.

2. Emphasis is laid upon the Preview, meaning thereby "The First Development Lesson" as described in II 2 above.

3. All new principles are then developed and explained, pupils are shown *how* to solve problems, exercises, or whatever is required as an application of the principles. By inductive or deductive work, by skilful questioning, by all methods known to the good teacher, the principles, the processes, and the applied exercises are worked out in the class, under the immediate direction of the teacher.

4. At this stage, there is but little recitation, in the sense of testing the pupils, but for the most part teaching, study, and exercise work.

5. *OUT-OF-CLASS PREPARATION WORK*—*Memory Work*, committing definitions, rules, principles, dates, facts, etc. *Copy Work*, copying and expanding the work of the lesson, composition writing, solving problems or performing exercises where the principle and the operation have been thoroughly taught (the purpose being to secure accuracy, facility and rapidity, etc., etc.).

6. *IN BRIEF*—The *thinking processes* belong more largely to the Study-Recitation and the *mechanical processes* to the pupils' out-of-class preparation.

#### III. Method of Testing.

A. Instead of making the recitation a mere test of the pupil's memory, the Study-Recitation is used in *working with the pupil* to the end that he may be taught to work properly.

B. As part of every recitation comes the checking up of work assigned for preparation. But

C. All quizzing, all testing, and all examining should be left until a certain phase or logical portion of the subject (a subject-portion) has been completely taught. "Avoid pulling the plant up by the roots to see how it is growing." Let it grow and measure results when it is matured.

##### D. Test Has Two Objects:

1. Memory of definitions, principles, and facts. Ability to reason upon these definitions, principles, and facts. In brief—a *thorough test of the pupil's knowledge structure*.

2. The accuracy, facility, and rapidity with which all mechanical operations are performed.

Note—It will be understood that all true teaching demands testing to see if the pupil has grasped the idea. This testing is properly a part of the Study-Recitation. All other testing should be left to the time for formal testing.

#### E. Oral Tests:

1. The teacher prepares a list of topics or questions which completely cover all the principles and details of the phase of the subject which has been taught. With these in hand or fixed well in mind by study, the teacher examines and cross examines the pupils, individually, in groups, or with the class as a unit when the subject admits it.

The questions to be logical, searching, and intended to *bring out with exactness all the strong, and all the weak places in the pupil's knowledge structure*.

2. Problems, exercises, and drills are planned to test the accuracy, facility, and rapidity of all mechanical processes. A time limit is assigned to all tests for rapidity.

F. *Written Tests*: These have the same ends in view as the Oral Tests. Unless ample time affords to write from twenty-five to fifty or more answers (as may be necessary to exhaust the subject), the oral test is to be preferred, but is never to be used to the exclusion of written tests.

#### IV. How the Groups Arise:

##### A. In the Study-Recitation:

1. When the Development Work has been done, some of the pupils will be found to be proficient in the work. This group of brighter pupils (called for convenience, Group A) will be excused from the Study-Recitation, and put at exercise work or supplementary work at their seats.

2. The remainder of the class will have the work developed for them again from a new viewpoint. Perhaps, a brief testing will again show a group proficient (Group B), and a remaining group (Group C) who need the work repeated.

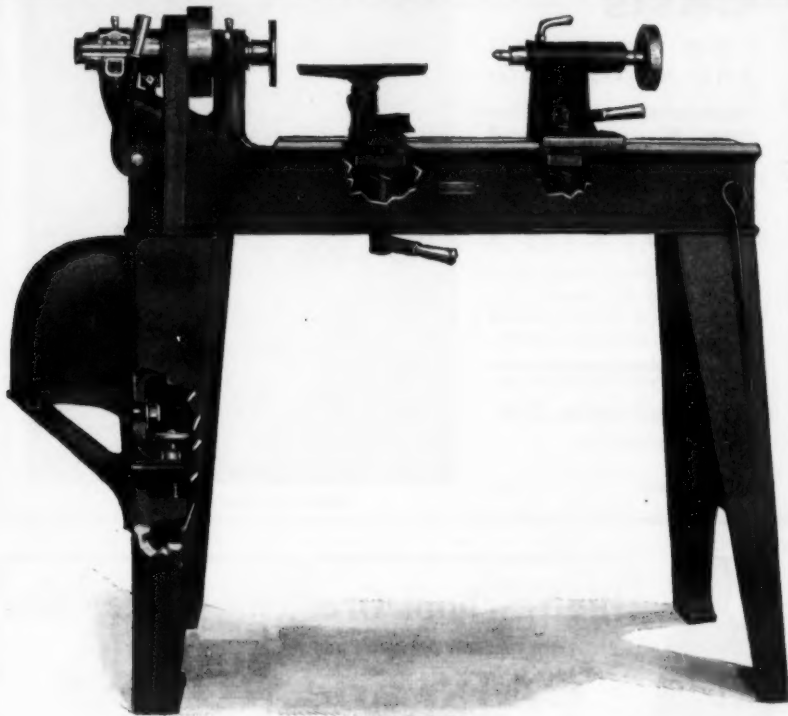
3. Having assigned new work to Groups A and B (See Supplementary Work Below). Group C has the work taught them for the third time.

4. When Group C is proficient, the whole class is again assembled and the work again proceeds as above described.

Note—This grouping is done only when necessary. Sometimes the work will need repetition but once, in which case there will be but two groups, A and B. It will be apparent that pupils first to finish (Group A) work in Mathematics, may be second or last in English, or Languages. Pupils in Group A may employ their time upon subjects in which they are weak. The groups are consequently not fixed as are grade and class lines. It is usually considered that pupils needing the work repeated more than three times are wrongly classified.



# MANUAL TRAINING EQUIPMENTS



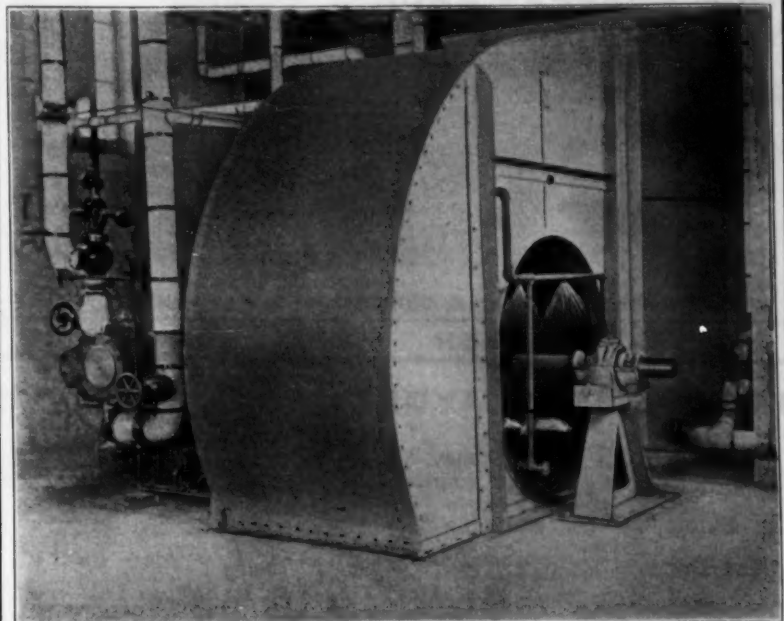
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## Zellweger Air Washing and Cooling Fan

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It is effective, self-cleaning and uncloggable.

It requires no special attention and is durable.

It automatically regulates the water supply and prevents the wash-water from becoming foul.

It furnishes more air for equal power than a combination of any kind of fan with separate spray washers, pump and stationary eliminator.

Any centrifugal fan can be transformed into a thoroughly satisfactory Air Washer, by substituting for the old wheel a Zellweger Filter Wheel with the necessary water pipes.

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### B. In the Formal Tests:

1. The tests will show some pupils proficient, and others not.

2. The pupils proficient are as a group put at supplementary work.

3. The pupils not proficient are reviewed and drilled as a group until they are up to standard.

4. Perhaps grouping will be needed to separate out those who will need formal instruction, and those who will need drill for accuracy, facility, or rapidity.

### V. Where Individual Instruction Is Needed:

A. As part of each Study-Recitation the teacher will devote a few minutes to individual instruction. The teacher passes from seat to seat, or from place to place at the board, and takes note of each individual's work. Brief help is possible and is given during this inspection. A number of pupils having the same difficulty are assembled as a group (or attention demanded) and the explanation is made. Where the pupil needs individual help, he is called to the teacher's desk, seated beside her, and personally taught (This method gives teacher control of the room).

B. The Formal Tests may show the need of Individual Instruction.

C. The technique of individual instruction differs from the technique of class instruction in that—

1. Initiative must come from the teacher.

2. All individual instruction is to be by the development method: i. e., the pupil is to be helped to develop himself. Direct instruction is forbidden.

The principles laid down by Superintendent Kennedy for individual instruction are:

1. Do not give individual instruction upon forthcoming lessons.

2. Do not tell a child anything, but see that he knows it.

3. Do not do anything for the child, but see that he does it.

To which has been added by a Minnesota superintendent:

4. Use the individual instruction period to bring up absent pupils.

5. Do not try to help too many pupils in one individual help-period.

### VI. Supplementary Work:

A. Supplementary work should be additional

work upon the same subject, the object being to give the pupil an enlarged idea of the subject.

B. Work which merely interests, or amuses the pupil, and which does not add to his knowledge nor to the accuracy, facility, or rapidity of his mechanical operations, has no value for the purposes of this method.

C. Group Instruction demands much supplementary work. But time is saved by giving to Group B the supplementary work given to Group A the previous lesson, and to Group C (when necessary) the work previously used by Groups A and B. Doing this also insures the same knowledge content.

D. Supplementary work should be inspected and corrected, and pupils held as responsible for it as for their regular lessons.

E. Supplementary Work should be arranged so that it may be easily and readily inspected.

### VII. The Bright Pupil:

A. Is worked to his capacity. Instead of placing emphasis upon passing through the curriculum more rapidly, the emphasis is upon his learning all his time will permit.

B. A pupil working into Group A in all his studies may be promoted to the next higher class, where he will work successively through Groups C, B and A another promotion.

C. Emphasis is upon making the bright pupil do more work because of his greater capacity.

### VIII. The Slow Pupil.

A. Has time to develop his ideas and to grasp the meaning of what is put before him.

B. Attains the minimum requirements of the Course of Study.

### IX. All Pupils:

A. Are more thorough.

B. Learn how to study, and how to do independent work.

C. Make slower progress at first, but much more rapid progress as the method is followed.

X. Arrangement of the Daily Program:  
Note: Reading work is done in connection with all subjects.

A. Arithmetic, Reading, Spelling, Grammar and Composition are well adapted to Whole-Class, Group, and Individual Instruction.

B. The other subjects, not being so well adapted to this method, are arranged as in the customary program of studies. But Grouping and Individual Instruction can be secured by whole-

class work one day, group work the next day or as many days as necessary, and Individual Instruction any day or part of a recitation period as may be necessary.

C. The long periods assigned to Arithmetic, Reading, Spelling, Grammar and Composition give the teacher perfect freedom to teach 7 B or 7 A as Whole-classes, to do Grouping, or Individual work as need arises. Also makes it possible to combine 7 B and 7 A into one group for drill work.

D. The time given to Arithmetic, Reading, Spelling, Grammar and Composition is calculated upon the number of minutes per week to be given to each subject.

### XI. Advantages:

A. Teachers and pupils have a smaller number of subjects to deal with each day.

B. A longer period for work on essential subjects.

C. A varied method of handling pupils. Work is more easily adjusted to individual needs.

D. The class is worked through to an individual basis, two and often three times; once in the Study-Recitation, and again in the Formal Tests. Result: All should be proficient in the work.

E. The method does not disturb in any way the present plan of organization and classification of schools.

F. Pupils become more self-reliant, more industrious, and more devoted to their work.

G. Pupils obtain more confidence in themselves because they work in a group approximating themselves in ability.

Mr. John S. Gallagher has recently been added to the Chicago educational agency force of Little, Brown & Company.

Mr. Moody D. Holmes of Concord, N. H., has recently retired from the agency force of Newson & Company.

Mr. Henry H. Beidleman of New York City has recently become eastern representative of the H. M. Rowe Company. He looks after private as well as public school business for the firm.

Mr. Ralph Nauffts, Boston, and Mr. H. S. Roberts, Wolfsboro, N. H., are recent additions to the agency force of Silver, Burdett & Company. Both travel in New England territory.



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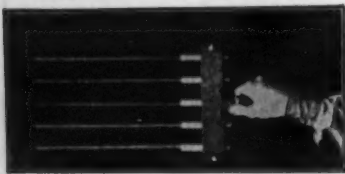


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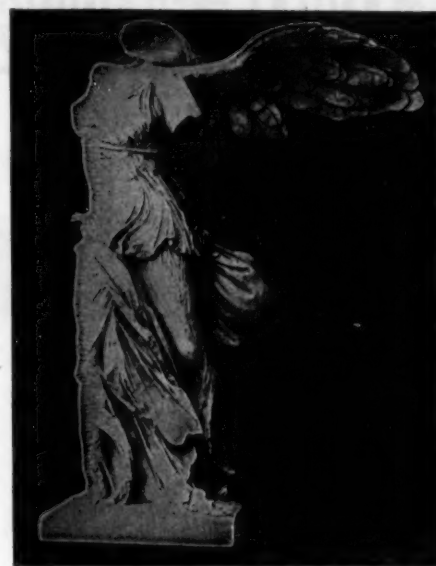
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## N. E. A. PREPARATIONS.

Distinct departures in the number and character of general and departmental session programs are promised by President Carroll G. Pearse for the conventions of the National Education Association in Chicago, July 6-12. Because of the failure of the railroads to grant excursion rates better than a flat two cents per mile, it has been determined to make the convention win attendance by the variety and interest of the topics to be discussed and by the surpassing prominence of the speakers who will appear on the platform.

The city of Chicago is making unusual efforts to entertain the meeting in accordance with its importance. The local committees have assured the association that every possible detail will be looked after. Chicago possesses a great number and variety of hotels, suited to meet the tastes and the pocketbooks of all classes of people, and reservations will be made especially for members of the N. E. A. During July accommodations can be had not only in the great commercial hotels in the business section of the city, but also in the large family hotels and apartment houses in the outlying districts. The local convention bureau has also obtained large lists of private rooming houses in which teachers can find lodgings.

The Chicago school authorities have arranged for the convention a large number of local excursions to the various schools of the city. Steamers will be chartered, on at least one day, to take members of the association for trips on Lake Michigan. The Chicago playground and park system, which is considered the best in the country, will be open for inspection during the convention.

The Congress and the Auditorium hotels have been designated jointly as headquarters of the association and its various departments. Theaters and halls in the immediate neighborhood will be available for department meetings and the general sessions will be held in the great Auditorium theater. The general program, in part, is as follows:

## MONDAY AFTERNOON, JULY 8.

Address of welcome and responses.

President's address, by Carroll G. Pearse, superintendent of schools, Milwaukee, Wis.

The Half Century Mark in the Life of the Association.

Historic and Reminiscent Addresses, by Thos. W. Bicknell, Providence, R. I., James M. Greenwood, Kansas City, Mo., and others.

## TUESDAY AFTERNOON, JULY 9.

Topic: *The American High School.*

1. Its Relation to the Schools Below, by Superintendent Walter R. Siders, Pocatello, Idaho.
2. Mortality in the Early Years: Some Administrative Remedies, by Assistant State Superintendent Adelaide S. Baylor, Indianapolis, Ind.
3. The Specialized or Vocational vs. the Composite High School, by Arthur D. Call, principal Henry Barnard school, Hartford, Conn.
4. Social Activities and Organization, by Superintendent-elect Milton C. Potter, St. Paul, Minn.
5. What the Public May Expect in Dividends: Material, Civic, Social, by Kate Upson Clark, Brooklyn, N. Y.
6. The Worship of "The Standards," by William H. Mearns, School of Pedagogy, Philadelphia, Pa.

## TUESDAY EVENING, JULY 9.

Topic: *A National University.*

1. The National Association of State Universities and the National University, by Edmund J. James, president of University of Illinois, Champaign, Ill.
2. A National University; a National Asset; an Instrumentality for Advanced Research, by Charles R. Van Hise, president of University of Wisconsin, Madison, Wis.
3. A National University as Related to Democracy, by James H. Baker, president of University of Colorado, Boulder, Colo.
4. Ways and Means; the Next Steps, by William O. Thompson, president of University of Ohio, Columbus, O.

## WEDNESDAY EVENING, JULY 10.

Topic: *The Relation of the Public Schools to the Movement for Recreational, Social and Civic Opportunity.*

1. How a Community May Find Out and Plan for Its Recreational Needs, by Rowland Haynes, field representative, Playground and Recreation Association of America, New York, N. Y.
2. The Relation of Schoolhouse Architecture to the Social Center Movement, by Dwight H. Perkins, Chicago, Ill.
3. The School as a Recreation Center, by Jane Addams, Hull House, Chicago, Ill.
4. The Social Center and the Rural Community, by Herbert Quick, editor of "Farm and Fireside," Springfield, O.

## THURSDAY EVENING, JULY 11.

Topic: *The Public Schools and the Public Health.*

## FRIDAY MORNING, JULY 12.

Topic: *Rural Life Conditions and Rural Education.*

1. The Problem Which the Country Faces.
2. What Has Been Done to Meet the Problem: Four reports from different sections of the Union.
3. Real Education Abroad.
4. What the National Government Can Do, United States Commissioner of Education Philander P. Claxton, Washington, D. C.

## FRIDAY EVENING, JULY 12.

1. The Next Best Thing for the Teaching Profession, by Albert E. Winship, editor of "Journal of Education," Boston, Mass.
2. The Camp-Fire Girls; the New Patriotism, by Dr. Luther H. Gulick, Russell Sage Foundation, New York, N. Y.
3. Address.

The departmental programs have not been announced at the time this issue of the Journal goes to press. School board members who will be interested in the Department of School Administration may receive copies of the program, which is being prepared by President W. A. Wirt, by addressing General Secretary Irwin Shepard, Winona, Minn., or Department Secretary William George Bruce, Milwaukee, Wis.

The Chicago authorities have listed a large number of "after convention" excursions which may be made at small cost. These include trips on the Great Lakes, to the summer watering places in Michigan, Wisconsin and Minnesota, and longer trips to the Mountain Country in the West. Full details about these may be had by addressing the Chicago Convention Bureau, care of the Chicago Association of Commerce, Chicago, Ill.

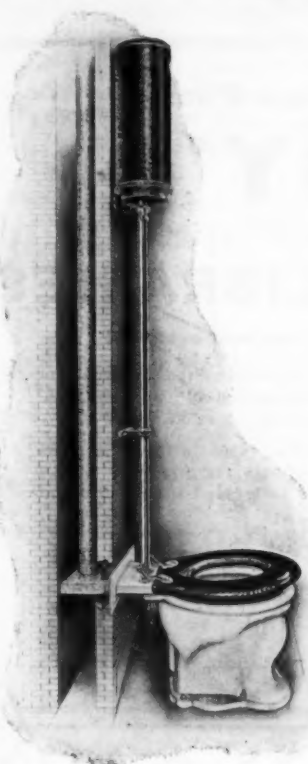
## Peace Day Bulletin.

The United States Bureau of Education has compiled a bulletin of information for the observance of Peace Day, May 18th. The author of the document is Mrs. Fanny Fern Andrews, secretary of the American School Peace League. The bulletin is said to contain the most comprehensive amount of material which has yet appeared on the subject of peace in such concise form. Commissioner Claxton recommends that superintendents of schools urge their teachers to obtain a copy.

Mr. Robert Coulter, connected with the Atlanta agency of the Milton Bradley Company, has recently gone out of school work.



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#### Collection of Rare Textbooks.

The New York Public Library has been recently exhibiting a collection from the largest private library of rare and interesting textbooks in the world. The collection is the property of Mr. George A. Plimpton, New York manager of Ginn & Company.

Especially noteworthy in the collection are the early textbooks on arithmetic which tell the complete story of the study of numbers, from the earliest beginnings to the present day. The evolution of teaching is shown from the period of those primitive works, by which the earliest monks learned to reckon the date of Easter and other festivals, to the quaintly titled books of the early nineteenth century which formed the basis of modern arithmetical study.

Mr. Plimpton has made a specialty of arithmetics, and has assembled an historical object lesson on the subject such as has never, perhaps, been gathered before. It begins with a work of great antiquity, a manuscript of Boethius, the fifth century scholar, which dates from the eleventh century, and is made doubly interesting by reason of the finely written marginal inserts of sums and examples. Another MS., of 1275, is a treatise on the theory of numbers by the same scholar. Two manuscripts also represent Computus, dated, respectively, 1384 and 1390. They are not works of great erudition, but sufficed to aid the monks in the computation of their church calendar.

A compendium of mathematics written by an Italian about the year 1400 gives the earliest account of algebra, while a manuscript of 1425 was considered an arithmetic at the time, but treats of irrational numbers, now thought a part of the higher study. This remarkable specimen was the work of Rollandus, a native of Lisbon, who was canon of Sainte-Chappelle in Paris. It is dedicated to John of Lancaster, Duke of Bedford, son of Henry IV. A MS. of Benedetto, 1400, contains many modern problems over which the school

children of yesterday and today have scratched wondering heads, including the famous "poser" of the hare and hounds.

An interesting book in the collection is a copy of the first arithmetic published in Treviso in 1478. Marginal sums done in ink show the labors of some pupil who learned from it. The commercial study of arithmetic is represented by the first book of this class, that of Giorgio Chiarini of Florence, printed in 1481.

Up to the year 1491 the makers of books on arithmetic did not feel called upon to illustrate their works, but in that year the precedent was set by Philippi Calandri, whose book contains a frontispiece showing Pythagoras in the act of teaching a number of boys. The honor of being the first book printed in England falls to one by Bishop Tunstall entitled "De Arte Supputandi Liber Quattuor Cutheberti Tonstalli." It is of the year 1522. John Widman's was the first to be printed on the subject in Germany and contained the first plus and minus signs. The arithmetic of Bungus, 1583, shows the peculiar use of Roman numerals when expressing large numbers.

Although there were a number of printed arithmetic books in the sixteenth century, those who wished to compute still had recourse to much more primitive methods in many cases, as is evidenced by four counters or reckoning pennies from Germany of the year 1558. They are copper pieces about the size of the present English penny and are but roughly rounded. A first edition of Adam Riese's arithmetic contains a picture showing the use of these rude implements of counting on a sort of counting board. The author, who was a famous *Rechenmeister* of the sixteenth century, was influential in replacing this counter method with written systems of computation. The Margarita Philosophica, the first modern encyclopedia, also shows the use of these counters.

The first arithmetic printed in the English language is Robert Ricorde's, of 1558. Ricorde was a "Doctor of Physike" and the title-page of his work describes it as, "The Ground of Artes teaching the woork and practise of Arithmetike both in whole numbers and fractions, after a more easier and exacter Sorte the nanye lyke hath hitherto bene set forth with divers new additions." To this work, in its time, a book by Humphry Balle was the only rival. America's first effort at printing an arithmetic did not come

until 1719. It is "Hodder's Arithmetick, or that necessary Art made most easy, being explained in a manner familiar to the Capacity of any that desire to learn it in a little time."

Isaac Greenwood, a professor in Harvard college, was the first American to write an arithmetic, which was printed in 1729. Three works were in wide use in this country before the revolutionary war: One by William Bradford, the first printer in New York City, entitled "The Secretary's Guide or Young Man's Companion;" the second, Dillworth's Arithmetic, and the third George Fisher's "American Instructor," printed by Benjamin Franklin.

Among the textbooks on higher mathematics a number of interesting manuscripts are shown. The collection includes the first Euclid printed in Greek, of 1533, together with an Arabic manuscript of the works of the great geometrician of about 1500 and a Latin manuscript of 1375. One of the earliest known manuscripts of algebra is a translation from the Arabic of Mohammed Ben Musa of Bagdad, who lived about the year 825. The manuscript itself was written in 1450. The first printed algebra written by Borgo Lucas Pasceoli, in 1494, is also included.

It is, perhaps, not a coincidence that the firm of which Mr. Plimpton has been a member for so many years should be the publishers of more standard texts on arithmetics than any other American publishing house. It is interesting to compare the early manuscripts in the Plimpton collection with the texts now listed by Ginn & Company. The thorough, scholarly treatment and the careful typography of the modern arithmetics form a strange contrast with the clumsy, inaccurate and incomplete works of earlier days.

Mr. Plimpton's collection is not merely an interesting oddity. Its value has been established very fully by the study which has been made of it by Professor David Eugene Smith of Columbia University. Dr. Smith compiled, several years ago, a very complete catalogue of arithmetics written before the year 1601, with a description of all the more important copies extant. It is interesting to note that the chief basis for his study was the Plimpton collection.

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Selma—\$35,000, bonds, have been voted for high school. Enterprise—Contract has been awarded for Coffee County high school.

## ARIZONA.

Florence—Arch. R. W. Lescher, Phoenix, has plans for 2-story grammar school; \$25,000.

## ARKANSAS.

Argenta—Arch. C. L. Thompson, Little Rock, has plans for high school; \$80,000. Lockesburg—Arch. V. B. Van Dike has plans for school; \$10,000. Newport—Bids have been received for 2-story school.

## CALIFORNIA.

San Diego—Archts. Quayle Bros. & Cressy, Los Angeles, have plans for polytechnic high school; \$180,000. Coronado Beach—Archts. Quayle Bros. & Cressy, Los Angeles, have plans for high school. Santa Cruz—\$120,000, bonds, have been voted for school. Riverside—\$10,000, bonds, have been voted for grammar school. San Diego—Two-story grammar school will be erected. Teralta School District. Santa Paula—\$100,000, bonds, have been voted for high school. Sawtelle—\$20,000, bonds, have been voted for grammar school. A. G. Stoner, Trustee. Los Angeles—Archts. Withy & Davis have plans for 2-story school. Los Angeles—Arch. Robt. M. Taylor has plans for school. Los Angeles—Plans have been prepared for school on Macy street; \$10,000; also at Wadsworth avenue and Thirty-fifth street; \$40,000; and at Fifty-second street and McKinley avenue; \$60,000. Hughson—Archts. Smith & Wiseman, Bakersfield, have plans for 1-story grammar school. Longbeach—\$100,000, bonds, have been voted for school. Jackson—\$25,000, bonds, have been voted for high school. Willows—Propose erection of high school. Stockton—Bids have been received for Washington school. Venice—\$60,000, bonds, have been voted for school. Oroville—\$46,000, bonds, have been voted for Bird street grammar school. Nevada City—High school will be erected; \$30,000. South Oak Park—School will be erected; \$15,000. Roseville—High school will be erected. Santa Clara—Propose erection of grammar school; \$60,000 to \$90,000. Visalia—Propose erection of high school; \$29,000. San Francisco—School will be erected on Eighteenth and Vermont streets; \$50,000. Tulare—Propose erection of two schools.

## COLORADO.

Colorado Springs—Archts. McLaren & Thomas have plans for high school; \$440,000. Fruitvale—\$15,000, bonds, have been voted for high school. New Castle—School will be erected; \$8,500. Fruita—Two-story school will be erected; \$24,000.

## CONNECTICUT.

Hartford—\$450,000 bond issue has been authorized for high schools. Fairfield—Propose erection of 2-story school; \$10,000. Waterbury—Archts. Freney & Jackson have plans for school.

## GEORGIA.

Senoia—\$10,000, bonds, have been voted for new school. Cochran—School will be erected; \$20,000. Savannah—School will be erected on Thirty-seventh street; \$40,000. Quitman—Site will be selected for school; \$10,000. Bainbridge—Contract will be awarded May 15, for school;

\$50,000.

## IDAHO.

Gifford—School will be erected; \$14,000.

## ILLINOIS.

Berwyn—Arch. Geo. W. Ashby, Chicago, has plans for two schools. Newman—Arch. J. F. McCoy, Danville, has plans for high school. Harrisburg—Bids have been received for 2-story school. Granville—Bids have been received for 6-room school. East St. Louis—Archts. Riester & Rubach have plans for 3-story school; \$30,000. Chicago—Arch. Wm. F. Gubbins has plans for 2-story school; \$40,000. Blue Island—Arch. J. H. Huber has plans for 2-story school. First Lutheran church. Springfield—Arch. G. B. Helmle has plans for 2-story school. St. Agnes Catholic church; \$50,000. Carlinville—Archts. Rinaker & Furrow have plans for 2-story school; \$35,000. Taylorville—Two-story school will be erected; \$10,000. Galesburg—Bids have been received for 2-story school; \$25,000; N. K. Aldrich, Archt. Hamilton—Archts. Reeves & Baillie, Peoria, have plans for 10-room school. Herrin—Archts. Reeves & Baillie, Peoria, have plans for 8-room school. Ferris—Archts. Payne & Son, Carthage, have plans for school; \$6,500. Rock Island—Arch. O. Z. Cervin has plans for 3-story manual training school; \$65,000. Pekin—High and ward schools will be erected; \$55,000 and \$50,000 respectively. Hillsboro—Arch. A. B. Frankel, East St. Louis, has plans for a 2-story school. Belleville—Archts. Riester & Rubach, East St. Louis, have plans for Jefferson school. Springfield—\$75,000, bonds, have been voted for two schools. La Salle—\$40,000, bonds, have been voted for school. Morris—Two ward schools will be erected; \$7,000 each. Gibson—High school will be erected; \$50,000. Mattoon—School will be erected. Ravinia—\$15,000, bonds, have been voted for school. Streator—Bids have been received for school, District No. 6, Twp. 32. Moline—Propose erection of high school. Danvers—School will be erected; \$20,000. Coal City—Propose erection of high school. Galesburg—Bids have been received for erection of Third Ward school. Peoria—\$40,000, bonds, have been voted for Lincoln school. Mackinaw—Propose erection of high school. Gibson City—Contract has been awarded for school. La Salle—Arch. V. A. Matteson has plans for Jefferson school.

## INDIANA.

New Paris—Archts. Ellwood & Ellwood, Elkhart, have plans for 2-story high school; \$25,000. Broad Ripple—Archts. H. L. Bass & Co., Indianapolis, have plans for 2-story school; \$30,000. Fremont—Archts. Griffith & Fair, Ft. Wayne, have plans for 2-story high school; \$18,000. German—Archts. Griffith & Fair, Ft. Wayne, have plans for 2-story high school; \$12,000. Warsaw—Two-room school will be erected. Silver Lake Twp; \$6,000. Burlington—Arch. O. C. Collins, Frankfort, has plans for 2-story school. Bids will be received about June 1. Indianapolis—Arch. C. C. Martindale, has plans for school, No. 3. Greentown—Archts. Dunlap & Van Arman, Indianapolis, have plans for 2-story high school; \$30,000. Clinton—Arch. J. G. Vrydagh, Terre Haute, has plans for 2-story school. Seircleville—Bids have been received for 2-story high school; Archts. J. T. Johnson & Co., Indianapolis. Markle—Bids have been received for school. Newberry—School will be erected; \$8,000. Indianapolis—Arch. W. H. Albersmeier has plans for 1-

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story school, near Indianapolis. Washington—High school will be erected; \$50,000. Valparaiso—Arch. Chas. E. Kendrick, Gary, has plans for school; \$6,000. Gary—School will be erected in Ross Twp.; \$6,000. Indiana Harbor—Two-story school will be erected. Archt. Jos. T. Hutton, Hammond. Tennyson—Archts. C. Shoppell & Co., Evansville, have plans for school. Lexington—School will be erected, W. O. Green, trustee. Midland—Arch. J. W. Gaddis, Vincennes, has plans for two schools. Vincennes—Proposals have been received for school; Frank Krack, trustee. Curtisville—School will be erected; \$23,000. Winchester—Contract has been awarded for school; \$11,500. Brazil—Contract has been awarded for school; \$6,000; Jas. Muncie, trustee. Rochester—High school will be erected; \$40,000. State Line—Propose erection of school. Taylorville—Bids have been received for 2-room school, Dist. No. 1. Muncie—Propose erection of high school.

## IOWA.

Battle Creek—New school will be erected. Carnavon—Bids have been received for two schools. Allison—Bids have been received for school; \$15,000; J. W. Bradford, Archt., Ft. Dodge. Bancroft—School will be erected; \$6,000. Fairfield—Bids have been received for high school. Fort Dodge—\$100,000, bonds, have been issued for two schools. Lynnville—School will be erected; \$15,000. Marshalltown—\$12,000, bonds, have been issued for school. Mason City—School will be erected, Falls Twp.; \$20,000. Moville—School will be erected; \$15,800. Mt. Ayr—School will be erected; \$45,000. Ottumwa—School will be erected; \$35,000. Stanton—School will be erected; \$7,200. Zwingli—Bids have been received for school. Sioux City—Arch. T. E. Colby has plans for 2-story school; \$18,000. Sioux City—\$135,000, bonds, have been voted for 3-story high school. Clear Lake—Archts. Jeffers & Trafzer, Mason City, have plans for high school; \$50,000. Bids will be received about May 9th. Dubuque—Arch. William B. Ittner, St. Louis, Mo., has plans for Prescott school. Knoxville—Bids have been received for school. Rock Falls—School will be erected. Waterloo—Two schools will be erected; \$50,000. Yorkton—High school will be erected. Clarinda—Propose erection of school; \$50,000. Clemons—\$12,000, bonds, have been voted for school. Ft. Dodge—Contract has been awarded for Wahkonsa school; \$50,000. Oakland—Bids have been received for school. Parkersburg—Bids have been received for school, German Luth-

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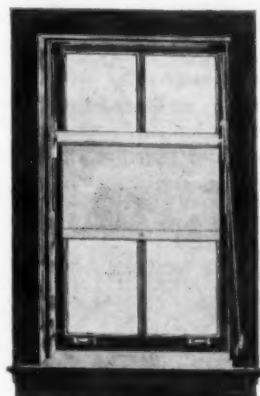
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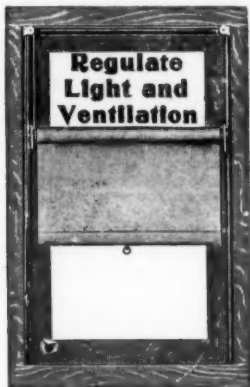
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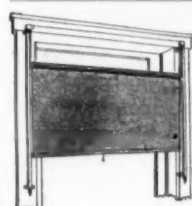
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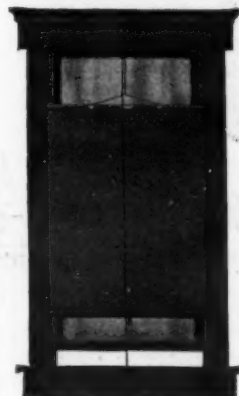
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Will expose all the window without dropping below the window sill. Rolls up from top or bottom. Our rollers will not run away. They are provided with a positive stop or locking device that automatically catches the roller by means of a GRAVITY hook the moment the operator releases his hold upon the bottom pull.

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We manufacture a cotton duck shade that operates without a roller, and may be folded to one-seventh its length at one operation, adjusting from either top or bottom.

Send us your estimates and we will send you samples that will explain the workings of our shades in every detail. We prepay express charges on samples.

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SPICELAND, INDIANA

eran church, Beaver Twp. Pella—School will be erected. Rome—\$6,000, bonds, have been voted for school. Story City—Bids have been received for two schools, Dists. No. 4 and 6. Storm Lake—Contract has been awarded for school; \$49,000. Sioux Center—Propose erection of school. Troy Mills—\$5,000, bonds, have been voted for school. Waterloo—Contract has been awarded for Lafayette school. West Burlington—Contract has been awarded for parochial school, St. Mary's church. Bloomfield—Bids have been received for school, Dist. No. 1, Perry Twp. Iowa City—School will be erected; \$50,000. Defiance—\$10,000, bonds, have been voted for school. Lorimer—\$20,000, bonds, have been voted for high school. Primghar—Arch. W. W. Beach, Sioux City, is preparing plans for 2-story school; \$30,000. Riceville—\$11,000, bonds, have been voted for school. Wellman—Contract has been awarded for school, Albia—Contract has been awarded for high school. Lenox—School will be erected. Manchester—Bids have been received for high school. Riverton—\$15,000, bonds, have been voted for school. Hopeville—Bids have been received for school. Webster City—School will be erected; \$50,000. Estherville—Propose erection of school; \$85,000. Creston—School will be erected. Hamilton—High school will be erected. Algona—\$19,000, bonds, have been voted for school. Stanhope—Bids have been received for school, Clear Lake Twp. Vinton—Manual and domestic training school will be erected; \$40,000.

### KANSAS.

Bucklin—Bids have been received for school; \$20,000. Emporia—\$135,000, bonds, have been voted for high school. Mae N. Clark, secretary. Osage City—\$25,000, bonds, have been voted for high school. Belleville—School will be erected, Dist. No. 66. Pittsburg—Arch. C. W. Munn, has plans for colored school. Leavenworth—Propose addition to high school; \$20,000.

### KENTUCKY.

Sharpsburg—Bids have been received for school. Lancaster—High school will be erected; \$30,000. Cadiz—Contract has been awarded for high school; \$17,000. Jamestown—High school will be erected; \$30,000.

### LOUISIANA.

Lake Charles—Bids have been received for four 2-story schools. Archts. Farrot & Livaudais, New Orleans. Ponchatoula—High school will be erected; \$16,500. Baton Rouge—Proposals have been received for erection of high school. Stevens & Nelson, Archts.

### MARYLAND.

Baltimore—Arch. Theo. Wells Pietsch has plans for state normal school; \$600,000. Baltimore—Propose erection of school; \$125,000. Ridgely—Agricultural high school will be erected; \$15,000.

### MASSACHUSETTS.

Fall River—Propose erection of 12-room school. New Bedford—Bids have been received for 20-room school. Franklin—School will be erected; \$30,000. Peabody—School site will be selected. John J. Connor, secretary. East Bridgewater—High school will be erected.

### MICHIGAN.

Pontiac—Two-story school will be erected; \$125,000. South Haven—Archts. H. L. Bass & Co., Indianapolis, Ind., have plans for high school; \$40,000. Holland—Arch. John D. Chubb, Chicago, Ill., has plans for 2-story school. Benton Harbor—Four-room school will be erected; \$16,000. Muskegon—Archts. Vanderwest & Pease have plans for 8-room school, St. Mary's parish; \$7,000. Ontonagon—Bids will be received May 10 to 25 for high school; \$45,500. Grand Rapids—Archts. Robinson & Campau have plans for 3-story high school; \$300,000. Grand Ledge—Arch. J. N. Churchill, Lansing, has plans for 2-story school; \$12,000. Greenville—Arch. J. N. Churchill, Lansing, has plans for 2-story school; \$18,000. Saginaw—Industrial school will be erected; \$70,000. Arch. F. W. Hollister, Saginaw—Arch. J. F. Beck-bessinger has plans for 2-story school; \$65,000. Flint—Archts. Malcomson & Higginsbotham, Detroit, have plans for 2-story school; \$60,000. Holland—High school will be erected; \$80,000. Alma—High school will be erected. Petoskey—\$80,000, bonds, have been voted for high school.

### MINNESOTA.

Bemidji—\$5,000, bonds, have been voted for new school. Albertville—Two-story school will be erected. Buhl—School will be erected. Eveleth—Bids have been received for 1-story school, Dist. No. 125, town of Albion. Wahkon—Archts. Ellerbe, Round & Sullivan, Duluth, have plans for 2-story school; \$30,000. Eveleth—Bids have been received for erection of Lincoln school, Dist. No. 39. Edgerton—\$16,000, bonds, have been voted for school. Granite Falls—Bids have been received for new school. Indus—Archts. F. L. Young & Co., Duluth, have plans for school. International Falls—Contract has been awarded for two new schools. Rochester—Parochial school will be erected, Seventh and Franklin streets. Winona—School will be erected in Fremont, Albia and Dresbach counties. Cove—\$6,000, bonds, have been voted for school, Dist. No. 17. Crookston—High and grade school will be erected; \$150,000. Lonsdale—Propose erection of parochial school. Northfield—Archts. Patton & Miller, Chicago, Ill., have plans for school. Virginia—Contract has been awarded for school. Hibbing—Arch. Wm. B. Ittner, St. Louis, Mo., has plans for 2-story school; \$100,000. Winton—Archts. Frank L. Young & Co., Duluth, have plans for 2-story school; \$14,000. Caledonia—Bids have been received for 2-story school. Florence—\$4,000, bonds, have been voted for school. Hutchinson—Plans are being prepared for school. St. Louis Park—Bids have been received for 1-story school, Arch. F. E. Halden, Minneapolis. St. Paul—Archts. Alban & Hausler have plans for James J. Hill school; \$20,000. Rochester—Arch. Albert Schippel, Mankato, has plans for 6-room school; \$12,000. Alberta—Two-story school will be erected; \$12,000. McIntosh—Archts. Alban & Hausler, St. Paul, have plans for school. Merrifield—Bids have been received for school, Dist. No. 106. Quin Parker, treasurer. Minneapolis—Central high school will be erected; \$500,000. Le Roy—\$10,000, bonds, have been voted for school.

### MISSISSIPPI.

Biloxi—Archts. Nolan & Torre, New Orleans, La., have plans for school; \$50,000.

### MISSOURI.

Bethany—Arch. R. Heim, St. Joseph, has plans for 2-story high school; \$40,000. Lowry City—\$8,000, bonds, have been voted for school; J. B. Good, secretary. Fau-cett—High school will be erected. Sugar Creek—\$12,000, bonds, have been voted for school.

### MONTANA.

Whitefish—M. B. Riffe, Kalispell, has plans for school; \$36,000. Willis—Bids have been received for school, Dist. No. 26. Butte—Bids have been received for Emerson school. Townsend—\$10,000, bonds, have been voted for school. Twin Bridges—School will be erected; \$9,500. Whitefish—School will be erected at Lakeside; \$7,000.

### NEBRASKA.

Hebron—Contract has been awarded for high school. Duncan—Contract has been awarded for school. Humphrey—\$20,000, bonds, have been voted for school. Kearney School will be erected, Dist. No. 121, Buffalo county. Kenesaw—Contract has been awarded for school. So. Omaha—Arch. J. M. Nachtigall, Omaha, has plans for St. Mary's school. Bridgeport—Bids have been received for school, Dist. No. 44. Lincoln—Archts. Berlinghof & Davis have plans for high school; \$350,000. Omaha—Sixteen-room school will be erected on Miller Park site; \$70,000.

### NEW HAMPSHIRE.

Keene—Arch. Clarence P. Hoyt, Boston, Mass., has plans for 2-story school.

### NEW JERSEY.

Hilton—Archts. D'Oench & Yost, New York City, have plans for 2-story school; \$65,000. Summit—Archts. Cady & Krug, New York City, have plans for 2-story school; \$25,000. Vineland—Archts. Moffet & Stewart, Camden, have plans for school; \$25,000. Caldwell—Bids have been received for school. Atlantic City—Archts. Stout & Riebenack, have plans for 3-story school; \$180,000. Montclair—Arch. James Gamble Rogers, New York City, has plans for 3-story school; \$100,000. Absecon—Arch. J. Vaughan Mathis, Atlantic City, has plans for 2-story school. Montclair—Archts. Van Vleck &

Goldsmith, New York City, have plans for 2-story school on Grove street. Garfield—Proposals have been received for erection of school No. 4. Newark—Arch. E. F. Guilbert has plans for 4-story school. Leonia—\$65,000 bond issue has been authorized for high school.

### NEW MEXICO.

Clovis—Propose erection of high school; \$25,000.

### NEW YORK.

Buffalo—Arch. Martin C. Miller has plans for 4-story technical high school. Rome—Arch. F. W. Kirkland has plans for 3-story school building; \$50,000. New York—Arch. Adolph Mertin has plans for 5-story school; \$40,000. Frankfort—Arch. F. W. Kirkland, Rome, has plans for 3-story school; \$40,000. New York—Arch. P. A. De Meuron has plans for 4-story school, Our Lady of Lourdes. Buffalo—Archts. Esenwein & Johnson have plans for Maaten Park high school; \$500,000. Pough-keepsie—Arch. Wilson Potter, New York City, has plans for 3-story high school; \$250,000. Watertown—Archts. Cram, Goodhue & Ferguson, New York City, have plans for 1- and 2-story schools; \$100,000. Kingston—Three-story parochial school will be erected, St. Joseph's church. Millbrook—Bids have been received for 2-story school; \$12,000. Newburgh—School will be erected, Union Grove. Yonkers—Arch. C. O. Chipman, New York City, has plans for 2-story school. Fairmount—District school will be erected. New York—Arch. John V. Van Pelt has plans for parochial school, Church of the High Spirit; \$12,000. Buffalo—Hutchinson high school will be erected; \$625,000. Will be ready for figures July 15. Ards-ley—Arch. F. L. Hastings has been selected to prepare plans for 2-story school; \$40,000. Old Forge—School will be erected; \$30,000. Ithaca—Bids have been received for high school.

### NORTH CAROLINA.

West Durham—School will be erected; \$15,000.

### NORTH DAKOTA.

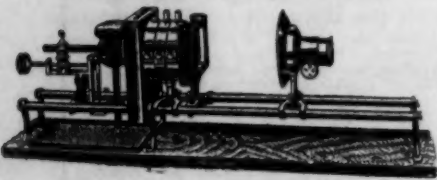
Shields—Two-room school will be erected. Devils Lake—Four-room school will be erected. Lisbon—\$16,000, bonds, have been voted for high school. McClusky—Contract has been awarded for school. Regent—Plans have been prepared for school. Grafton—Bids have been received for school, Dist. No. 62. S. Herwick, clerk, R. F. D. No. 1. Steele—Bids will be received until May 6 for erection of school. Valley City—Plans and specifications will be received for state normal school until May 24.

### OHIO.

Kennedy—Archts. Hunt & Reiter, Norwood, have plans for 2-story school; \$60,000. Toledo—Arch. L. G. Welker has plans for 1-story school; \$10,000. Rising Sun—Arch. F. M. Smith, Fostoria, has plans for 4-room school; \$12,000. Doln—Bids have been received for 2-story school. St. Bernard—School will be erected; \$250,000. Akron—School building for Sacred Heart Academy will be erected; \$40,000. Rev. Frank Braun, Cleveland—Arch. Wm. C. Jansen has plans for 2-story school, St. Vitus church. Columbus—Archts. D. Riebel & Sons have plans for 2-story school; \$30,000. Marietta—Arch. W. T. Mills has plans for 2-story school; \$90,000. Buchtel—Archts. Howard & Merriam, Columbus, have plans for 2-story school; \$40,000. Xenia—Arch. E. J. Mount-stephen, Dayton, has plans for parochial school, St. Brid-get's R. C. church; \$35,000. Empire—Archts. Howard & Merriam, Columbus, have plans for 2-story school; \$30,000. Norwood—Two-story school will be erected, St. Elizabeth's R. C. church; \$50,000. Springfield—School will be erected; \$30,000. West Farmington—Arch. Rufus Thompson, Youngstown, has been selected to prepare plans for high school. Dorset—Arch. Wm. Johnson, Ashtabula, has plans for 2-story school; \$14,000. Circle-ville—Archts. Stribling & Lum, Columbus, have plans for 2-story school, Pickaway Twp. Sidney—Proposals have been received for high school. Marietta—Proposals have been received for Washington school. St. Jacobs—Arch. J. F. Sheblessey, Cincinnati, has plans for 2½-story school, St. James R. C. church. Barton—Arch. Geo. S. Mooney, Wheeling, W. Va., has plans for 2-story school; \$12,000. Roscoe—\$10,000, bonds, have been voted for school. Bowling Green—Archts. Howard & Merriam, Columbus, have plans for 2-story normal school;



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### THE COLLEGE BENCH LANTERN

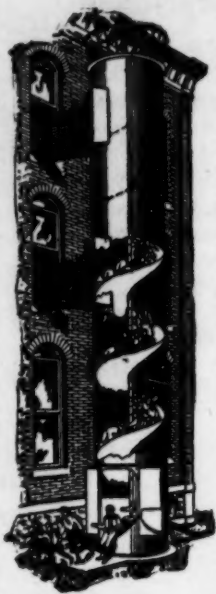
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**Kirker-Bender the Spiral Slide**  
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### CLASS PINS AND BADGES

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Descriptive catalog with attractive prices mailed free upon request. Either style of pins here illustrated with any three letters and figures, one or two colors of enamel. STERLING SILVER, 25¢ each; \$2.50 doz.; SILVER PLATE, 10¢ each; \$1.00 doz. EASTMAN BROS. CO. Dept. 787 ROCHESTER, N. Y.

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\$150,000. So. Zanesville—Archts. Ellsworth & Smith, Columbus, have plans for 2-story school; \$20,000. Graytown—Bids will be received until May 6 for erection of 1-story school; \$7,000. Kunkle—Bids have been received for school. Marysville—Proposals have been received for school. Lancaster—Propose erection of 2-story school. Euclid—Archts. F. C. Warner, Cleveland, has plans for two schools. Marion—Bids will be received until May 11 for erection of school; \$5,000. Hamilton—High school will be erected. St. Clairsville—Propose erection of school; \$60,000. Salem—Archts. C. F. Owsley, Youngstown, has plans for manual training high school; \$75,000. Sandusky—Propose erection of high school; \$250,000. Massillon—Site has been purchased for high school. Cleveland—Proposals will be received until May 13 for an addition to school for Crippled Children. Tiffin—Archts. F. L. Packard, Columbus, has plans for College Hill school.

#### OKLAHOMA.

Collinsville—High school will be erected, Dist. No. 32; \$40,000. Collinsville—Archts. Chas. A. Popkin, Sapulpa, has plans for two ward schools; \$12,000. Paul's Valley—Six-room school will be erected. Gray—Bids have been received for school; N. G. Nelson, clerk, Balke, Okla. Muskogee—\$130,000. Bonds, have been voted for schools. Ardmore—Archts. White has plans for high school.

#### OREGON.

Portland—Bids have been received for Creston, Montavilla and Weston schools. Eugene—\$200,000, bonds, have been voted for school. Roseburg—Contract has been awarded for school; \$31,000. Klamath Falls—School will be erected.

#### PENNSYLVANIA.

Ardmore—Archts. Furness, Evans & Co., Philadelphia, have plans for 2-story school; \$50,000. Pottstown—Archts. A. A. Ritcher, Lebanon, has plans for school, St. Cecilia R. C. church. Wilkesburg—Archts. J. T. Comes, Pittsburgh, has plans for 3-story school, St. James R. C. church; \$40,000. New Oxford—Archts. J. H. McClymont, York, has plans for 2-story school. New Alexandria—School will be erected; \$15,000. Allentown—Bids have been received for 4-room school. Pittsburgh—Bids have been received for 1-story school; \$6,000. Coatesville—Archts. Henry L. Reinhold, Jr., Philadelphia, has plans for school; \$100,000. Windber—Three-story school will be erected; \$50,000. Lambertville—High school will be erected. Oakmont—Contract has been awarded for school, Fifth and E streets; \$110,000. Harrisburg—Two high schools will be erected; \$500,000. Philadelphia—Plans are being prepared for school at Third and Mifflin streets; \$300,000.

#### SOUTH CAROLINA.

Holly Hill—Bids have been received for school.

#### SOUTH DAKOTA.

Chancellor—School will be erected. Mobridge—\$3,500, bonds, have been voted for school, Flora District. Canton—Bids have been received for school, Dist. No. 22. Platte—Bids have been received for 2-story high school. Britton—Archts. P. D. Orr, Minneapolis, Minn., has plans for 2-story school. Astoria—School will be erected; \$3,000. Rapid City—\$40,000, bonds, have been voted for high school. Sisseton—Bids have been received for school, Long Hollow School District. Woonsocket—High school will be erected; \$24,000. Platte—Bids have been received for school.

#### TENNESSEE.

Lebanon—Contract has been awarded for high school. Gordonsville—High school will be erected; \$20,000. Columbia—Propose erection of high school; \$50,000.

#### TEXAS.

Asherton—Bids have been received for 2-story school, Dist. No. 2; \$10,000. El Paso—Two-story school will be erected; \$18,000. Moran—Bids have been received for school. Troy—Archts. W. E. Taylor, Ft. Worth, has plans for 2-story school. San Antonio—Bids have been received for 2-story school, Alamo Heights. Houston—Bids have been received for school. Shiner—School will be erected; \$15,000. Bishop—School will be erected; \$25,000.

#### UTAH.

Salt Lake City—Proposals have been received for Salt Lake high school. St. Anthony—High school will be erected; \$50,000. Brigham City—Central school will be erected; \$30,000.

#### WASHINGTON.

Sultan—Contract has been awarded for school; \$16,000. Waterville—School will be erected; \$40,000. Tacoma—Archts. Heath & Gove are preparing plans for

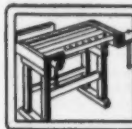
Central school; \$140,000. Everett—School will be erected; \$25,000.

#### WEST VIRGINIA.

Middlebourne—\$25,000, bonds, have been voted for school, Ellsworth District. Cairo—Bids have been received for school. Wheeling—School will be erected; \$60,000. Fairmont—Archts. A. C. Lyons has plans for four schools; \$70,000.

#### WISCONSIN.

Crivitz—School will be erected; \$6,000. Ripon—High school will be erected; \$30,000. Green Bay—Archts. Hubert & Anderson have plans for 2-story school. Rhinelander—\$38,000, bonds, have been voted for high school. Fort Atkinson—High school will be erected; \$100,000. Maple Grove—Parochial school will be erected; \$22,500. Wausau—Parochial school will be erected, Lutheran Trinity church; \$18,000. Waterford—Archts. Guilbert & Funston, Racine, have plans for 2-story school; \$17,000. Green Bay—Contract has been awarded for Howe school. Pensaukee—Two-room school will be erected. Ladysmith—Archts. Alban & Hausler, St. Paul, Minn., have plans for Catholic school, Servite Fathers. Cameron—School will be erected. Viroqua—School will be erected, Cook Hollow. Oconomowoc—School will be erected, St. Jerome church; \$10,000. La Crosse—School will be erected, Dist. No. 69. Waupaca—Contract has been awarded for school. Milwaukee—German-English high school will be erected; \$80,000. Tripoli—County high school will be erected; \$10,000.



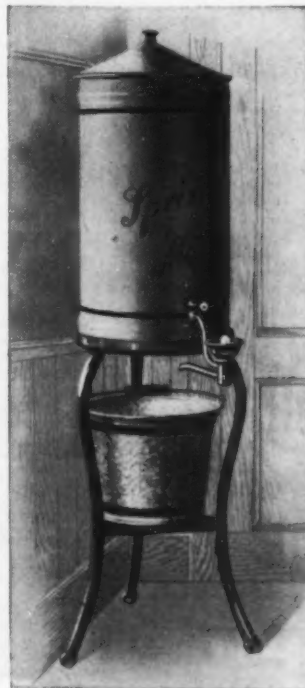
### EDUCATIONAL TRADE NOTES



#### NEW PRODUCTIONS.

##### Drinking Fountain.

"Spring Maid" is a most appropriate title. It savors of the fresh and sweet. It stands in contrast to the old rusty tin dipper. Imagination and the artist have beautified the "Spring Maid"



SPRING MAID DRINKING FOUNTAIN.

until this title for a drinking fountain has become most appropriate.

The fountain is as good as its name. It is designed for rural schools and all buildings not having water under pressure. Mr. T. S. Ainge, formerly of the Michigan State Board of Health, is responsible for the design and execution of the fountain.

Space will not permit a description of the mechanical features. By a process of insulation water is kept cool in summer and prevented from freezing in winter. The bubbler feature is simple and sanitary and commends itself to school authorities. Descriptive circulars, explaining the fountain in detail, can be had from the Lansing Metal Products Co., Lansing, Mich.

##### New Balopticon.

The Bausch & Lomb Optical Co., of Rochester, N. Y., announces the production of a new balopticon for projection of large opaque objects. The machine will allow the projecting of large illustrations, photographs, etc., and also embryos and anatomical specimens. Circulars on request.

#### SUMMER SCHOOLS.

The summer sessions of the American Institute of Normal Methods will again be called at Boston and Chicago, July 9-26. This is the twenty-second annual session devoted to the interests of supervisors and teachers of music and drawing.

The Eastern school will be convened as usual at the New England Conservatory of Music, Boston, Mass. William M. Hatch, 221 Columbus avenue, Boston, is director. The Western school, under the direction of Frank D. Farr, 623 South Wabash avenue, Chicago, will be called at the Northwestern university, Evanston, Ill.

The Prang Summer School of Normal Art will this year be held at Boothbay Harbor on the coast of Maine. The dates announced are July 9 to August 17. Elizabeth Garrabrant Branch, recently instructor in drawing at the Newark, N. J., high school, is the director. Marion Hamilton, grade critic teacher in the Rhode Island State Normal School, will offer a practical course in elementary manual training.

The board of education at Aurora, Ill., has contracted for 1,200 lockers for the East Side High School, Aurora, Ill., J. C. Llewellyn, architect. The Hess Warming and Ventilating Company, of Chicago, will supply the lockers with tubular welded panel doors and lower ventilation.

#### COMING CONVENTIONS.

May 1-2-3-4. Western Drawing and Manual Training Teachers' Association at Cincinnati, O. F. D. Crawshaw, University of Wisconsin, Madison, Wis., secretary.

May 3. Eastern Connecticut Teachers' Association at New London. F. J. Werking, president, Taftville, Conn.

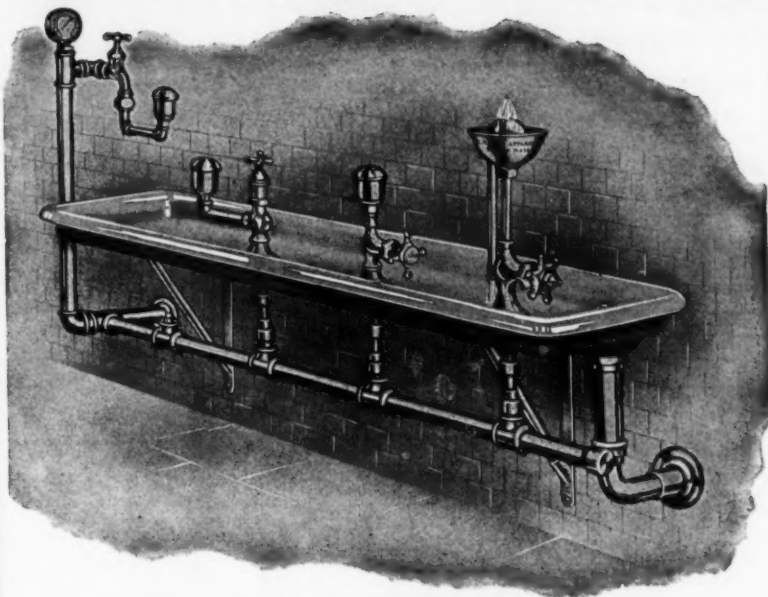
May 2-3-4. Mississippi Teachers' Association at Gulfport. H. L. McCleskey, secretary.

May 4. Women's Council of Education of Connecticut at Hartford. Elizabeth J. Cairns, president, Hartford.

May 8-9-10. Eastern Manual Training and Art Teachers' Association at Baltimore, Md. C. V. Kirby, president.



# THE KEITH BOSTON BUBBLER



PROTECTED BY TWO PATENTS, OTHERS PENDING

Designed by Prof. Keith (Prof. of Bacteriology at the Mass. Inst. of Tech.) after having made a study of the fountains formerly used in the schools of Newton, Mass.

The KEITH BOSTON BUBBLER is the ONLY bubbler having a serviceable AUTOMATIC pressure regulator. Mr. L. E. Thompson, Sec. of Bd. of Ed. of Lynn, Mass., writes:

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## Non-Squirting and Sanitary

The entire convex surface continually washed by the flow of water while the bubbler is in use. New catalogue being prepared.

Try a KEITH BOSTON BUBBLER a month without expense. We guarantee a uniform height of stream.

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Solicitors wanted to canvass every state on special subscription proposition. Superintendents, principals and county superintendents preferred. Address Frank M. Bruce, Milwaukee, Wis.

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Photographs wanted of interesting country schoolhouse surroundings, preferably such as show grounds before and after improvement through planting of trees and shrubs. Address Editor, American School Board Journal, Milwaukee, Wis.

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WE invite all our readers to continue to ask questions of any kind on any subject, and we promise to answer them fully and promptly. If we must, we will investigate any problem specially, charging the trouble and expense to our editorial appropriations.

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| Adjustable Window Shades.    | Ink Wells.....               |
| Air Washers.....             | Janitor Supplies.....        |
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| Athletic Field Apparatus.... | Liquid Soap.....             |
| Auditorium.....              | Lockers.....                 |
| Chairs.....                  | Manual Training Benches..    |
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| Book Covers.....             | Pencils.....                 |
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| Diplomas.....                | Plumbing Fixtures.....       |
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| Benches.....                 | Program Clocks.....          |
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| Drinking Fountains.....      | Scientific Apparatus.....    |
| Duplicators.....             | Skylight Operators.....      |
| Dusters (sanitary).....      | Slating.....                 |
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| Fountain Pens.....           | Temperature Regulation...    |
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| Furniture.....               | Typewriters.....             |
| Chairs.....                  | Vacuum Cleaning Systems...   |
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| Globes.....                  | Wall Paints.....             |
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| Heating Apparatus.....       | Water Pressure System.....   |
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### Textbooks

- |                              |                             |
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| Arithmetic .....             | History .....               |
| Art .....                    | Language and Grammar.....   |
| Astronomy .....              | Latin .....                 |
| Biology .....                | Manual Training .....       |
| Bookkeeping .....            | Music .....                 |
| Botany .....                 | Nature Study .....          |
| Business Law .....           | Physics .....               |
| Chemistry .....              | Physiology and Hygiene..... |
| Civil Government .....       | Political Economy .....     |
| Composition and Rhetoric.... | Readers .....               |
| Dictionaries .....           | Shorthand .....             |
| English Literature .....     | Spanish .....               |
| French .....                 | Spellers .....              |
| Geography .....              | Typewriting .....           |
| Geology .....                | Writing .....               |
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Send for Pamphlet on "Bugs and Blight," to B. HAMMOND, Fishkill-on-Hudson, N. Y.





Registered in U. S. Patent Office.

To the delight of all teachers and pupils "EAGLE" Pencils and Pens write smoother, last longer, and break less than any other make.

No. 245 "Alpha" for first year writing.

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E-740 Pen, for free arm movement.

Samples free to superintendents, principals and teachers.

377-379 BROADWAY **EAGLE PENCIL CO.** NEW YORK

#### The Limit.

The services in the chapel of a certain Western university are from time to time conducted by eminent clergymen of many denominations and from many cities.

On one occasion, according to Lippincott's, when one of these visiting divines asked the president how long he should speak, that witty officer replied:

"There is no limit, Doctor, upon the time you may preach; but I may tell you that there is a tradition here that the most souls are saved during the first twenty-five minutes."

#### A Good Fish-Line, Too

"Now, boys, what is the axis of the earth?"

"The axis of the earth," said Johnny, "is an imaginary line which passes from one pole to another, and on it the earth revolves."

"Very good, Johnny," said the teacher.

"Could you hang clothes on that line?"

"Yes, sir."

"Oh, indeed; and what sort of clothes, may I ask?"

"Imaginary clothes, sir."

#### Provocation.

"Why, Jimmie! Is it true that you gave little Bobbie a black eye?"

"Y-yessum."

"What excuse have you for such a brutal act?"

"W—well, he provoked me."

"How did he provoke you?"

"He hit back."—*St. Louis Republic.*

#### His Education.

An admiring friend was questioning the small boy as to his progress at school, says a writer in the *Pittsburgh Post*, and asked:

"Fifth grade next year, Johnny?"

"Yes, sir."

"Ah, you'll be in fractions or decimals then, no doubt?"

"No, sir; I'll be in beadwork and perforated squares."

"Are your parents American or German, sonny?" asked a teacher in a "slum" school of a shy new scholar.

"No'm, just plain white," was the surprising reply.

#### Eloquence.

School Directors Jones and Brown disagreed as to the eloquence of ex-Director Smith. Said Jones: "He was one of the most eloquent men who ever represented the Third ward on the school board. You should have heard him speak."

"I did hear him; I listened to him two hours one evening."

"What was he talking about?"

"I don't know; he didn't say."

#### In the Civics Class.

Teacher—"Remember, boys, that any little American may some day become President of the United States."

Boys—"Not if Teddy is going to keep on running."

Teacher—Now, boys, which of you can tell me the difference between lightning and electricity?

Bobby (eagerly)—Please, teacher, I can. Lightning is free, and electricity cost a lot of money.

#### Danny's Definition.

Teacher: "Now, Danny, what do you understand by 'righteous indignation'?"

Danny: "Gettin' mad without sayin' any cuss words."

## DIXON LEADS!

The new thought in teaching writing insists on a big pencil for the Primary Grades. This is Dixon's "Beginners'" pencil.

Every Principal and Superintendent, and every Drawing Teacher should write us for free sample of this pencil.

A color chart showing the twenty colors in which our crayons are made will also be sent.

**Joseph Dixon Crucible Co., Jersey City, N. J.**



#### Simplified Spelling.

"Why did you take Mary away from school, Katy?" a lady asked her cook.

"Cause de teacher ain't satisfactory tuh me. What you reckon she tell her yistidy? She say dat IV speel four, when even a idjut 'ud know dat it spells ivy."

#### A Versatile Old Lady.

The attention of the class in history seemed to be anywhere but on the subject in hand, and the young teacher was getting impatient.

"Children," she said, "you must pay better attention to what you are doing. You cannot possibly do two things at the same time. No one can do two things at once."

At this point a small boy raised his hand and waved it frantically in the air.

"Well, Willie, what is it?" she inquired.

"Please, teacher," said Willie, "my granny kin do two things ter onc't. I seen her."

"No, Willie, I think you must be mistaken, but suppose you tell us what these two things are."

"Please, ma'am, she kin read a' soak her feet all ter onc't."

#### Starke Zumuthung.

In Mainz beschlossen kuerzlich die "hoeheren Tochter" einer dortigen Schule, einem Lehrer, den sie besonders in's Herz geschlossen hatten, zum Geburtstag eine Schuessel mit leckeren Pfannkuchen zu verehren. Zu dem Angebinde dichtete eine der "hoeheren Tochter" einen Vers, der lautete:

Dies stiftet Ihre Zweite Klausse,  
Und wuenscht recht guten Appetit.  
Verzehren Sie die ganze Masse  
Und Ihre Frau und Kinder Mit!

Was doch wirklich eine starke Zumuthung ist.



The Recitation.

—Heinrich Wolff in Kunstwart.

## ELSON GRAMMAR SCHOOL READERS

For the Fifth, Sixth, Seventh and Eighth Grades. Investigate the worth that has brought them success.

CHICAGO **SCOTT, FORESMAN AND COMPANY** NEW YORK

## CHARLES E. MERRILL CO.

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44-60 East 23d St.  
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# Educational Trade Directory

The names given below are those of the leading and most reliable School Supply Houses and Publishers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms. If any desired item cannot be found listed, write to Wm. Geo. Bruce, Publisher, Milwaukee, Wis.

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L. O. Draper Shade Co.....  
Geo. M. Frampton, Pendleton, Ind.  
Oliver C. Steele.....Spiceland, Ind.

**AIR-WASHERS.**  
J. Zellweger & Sons, St. Louis, Mo.

**APPARATUS—SCIENTIFIC.**  
Bausch & Lomb.....Rochester, N. Y.  
Columbia School Supply Co.....  
McIntosh Stereop. Co.....Chicago  
Chicago Apparatus Co.....Chicago

**ART MATERIALS.**  
Binney & Smith.....New York  
Eagle Pencil Co.....New York  
Jos. Dixon Crucible Co.....  
Jersey City, N. J.  
Milton Bradley Co.....  
Springfield, Mass.  
B. K. Elliott Co., Pittsburgh, Pa.  
American Crayon Co., Sandusky, O.  
Economy Drawing Table Co.....  
Toledo, O.  
Columbia School Supply Co.....  
Indianapolis, Ind.  
Devoe, Dept. 5.....Chicago  
The Prang Co.....New York  
Beckley-Cardy Mfg. Co.....Chicago  
Colonial Crayon Co.....Akron, O.

**ATHLETIC FIELD APPARATUS.**  
Fred Medart Mfg. Co.....St. Louis  
W. S. Tothill.....Chicago  
A. G. Spalding & Bros.....  
Chicopee, Mass.

**AUDITORIUM SEATING.**  
Peckham, Little & Co., New York  
American Seating Co.....Chicago  
Haney School Furniture Co.....  
Grand Rapids, Mich.  
Peabody School Furniture Co.....  
No. Manchester, Ind.  
E. W. A. Rowles.....Chicago  
Beckley-Cardy Mfg. Co.....Chicago  
Peter & Volz.....Arlington Hts., Ill.

**AUDITORIUM SCENERY.**  
Kansas City Scenic Co.....  
Kansas City, Mo.  
Sosman & Landis Co.....Chicago

**BELLS.**  
St. Louis Bell Fdry., St. Louis, Mo.

**BLACKBOARDS—COMPOSITION.**  
N. Y. Silicate Book Slate Co., N. Y.  
American Seating Co.....Chicago  
Good Products Co.....Chicago  
Beckley-Cardy Mfg. Co.....Chicago

**BLACKBOARDS—NATURAL SLATE.**  
E. J. Johnson.....New York  
Penn. Structural Slate Co.....  
Worth Bldg., Easton, Pa.  
Keenan Structural Slate Co.,  
Bangor, Pa.  
Main-Bangor Slate Co., Bangor, Pa.  
Omega Slate Co.....Bangor, Pa.

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McConnell Sch. Sup. Co.....Phila.  
Haney School Furn. Co.....  
Grand Rapids, Mich.  
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Indianapolis, Ind.  
American Seating Co.....Chicago  
E. W. A. Rowles.....Chicago  
Beckley-Cardy Mfg. Co.....Chicago  
Keystone Book Co.....Chicago

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Apollo Publishing Co., Reading, Pa.

**BOOK COVERS.**  
Holden Book Cover Co.....  
Springfield, Mass.  
National Book Cover Co.....  
Syracuse, N. Y.

**BOOK DEALERS.**  
Keystone Book Co.....Chicago

**CAPS AND GOWNS.**  
Cottrell & Leonard, Albany, N. Y.  
Zimmermann Bros. Co.....  
Milwaukee, Wis.

**CHARTS.**  
Peckham, Little & Co., New York  
American Seating Co.....Chicago  
Milton Bradley Co.....Springfield  
McConnell Sch. Sup. Co.....Phila.  
E. W. A. Rowles.....Chicago  
A. J. Nystrom & Co.....Chicago  
Beckley-Cardy Mfg. Co.....Chicago

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Bastian Bros. Co., Dept. 767.....  
Rochester, N. Y.

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Standard Electric Time Co., Boston  
Fred Frick Clock Co.....  
Waynesboro, Pa.

**COSTUMES.**  
Fritz Schoultz & Co.....Chicago

**CRAYONS.**  
Binney & Smith.....New York  
American Crayon Co., Sandusky, O.  
E. W. A. Rowles.....Chicago  
Colonial Crayon Co.....Akron, O.  
(Dealers.)  
American Seating Co.....Chicago  
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Grand Rapids, Mich.  
Columbia School Supply Co.....  
Indianapolis, Ind.  
Beckley-Cardy Mfg. Co.....Chicago  
Peter & Volz.....Arlington Hts., Ill.

**DEAFENING QUILT.**  
Samuel Cabot.....Boston

**DESKS, ADJUSTABLE.**  
American Seating Co.....Chicago  
Haney School Furn. Co.....  
Grand Rapids, Mich.  
Columbia School Supply Co.....  
Indianapolis, Ind.

**DESKS AND SEATING.**  
American Seating Co.....Chicago  
W. A. Choate.....Albany, N. Y.  
Economy Drawing Table Co.....  
Toledo, O.  
Columbia School Supply Co.....  
Indianapolis, Ind.  
Peabody School Furniture Co.....  
No. Manchester, Ind.  
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Grand Rapids, Mich.  
E. W. A. Rowles.....Chicago  
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Langslow, Fowler Co.....  
Rochester, N. Y.

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F. W. Martin Co.....Boston, Mass.

**DISINFECTANTS.**  
American Sanitary Products Co.....  
St. Paul, Minn.

**DOMESTIC SCIENCE EQUIPMENT.**  
Orr & Lockett Hdw. Co.....Chicago  
Kewaunee Mfg. Co.....Kewaunee, Wis.

**DOMESTIC SCIENCE TABLES.**  
Grand Rapids Hand Screw Co.....  
Grand Rapids, Mich.  
Orr & Lockett Hdw. Co.....Chicago  
Kewaunee Mfg. Co.....Kewaunee, Wis.

**DOMESTIC SCIENCE STOVES.**  
Grand Rapids Hand Screw Co.....  
Grand Rapids, Mich.  
Simmons Hdw. Co.....St. Louis  
Orr & Lockett Hdw. Co.....Chicago

**DRINKING FOUNTAINS.**  
L. E. Knott Apparatus Co., Boston  
L. Wolff Mfg. Co.....Chicago  
Jas. B. Clow & Sons.....Chicago  
N. O. Nelson Mfg. Co., St. Louis  
Rundle-Spence Mfg. Co., Milwaukee  
M. H. Foundry & Mfg. Co.....  
Belleville, Ill.  
Hamrick-Tobey Co., Wausau, Wis.  
March-Tenny Co., Muskegon, Mich.  
Lansing Metal Products Co.....  
Lansing, Mich.  
**DUPLICATORS.**  
Hektograph Co.....New York

**ERASERS.**  
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Peckham, Little & Co., New York  
American Seating Co.....Chicago  
McConnell Sch. Sup. Co.....Phila.  
Haney School Furn. Co.....  
Grand Rapids, Mich.  
Columbia School Supply Co.....  
Indianapolis, Ind.  
E. W. A. Rowles.....Chicago

**FIRE ESCAPES.**  
Dow Wire & Iron Works.....  
Louisville, Ky.

**FIRE EXIT LATCHES.**  
Vonnegut Hdw. Co.....Indianapolis, Ind.

**FIRST-AID CABINETS.**  
Hess Warming and Ventilating  
Co.....Chicago

**FLOOR DEAFENING.**  
Samuel Cabot.....Boston

**FUMIGATORS.**  
De Free Chemical Co.....  
Holland, Mich.

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McConnell Sch. Supply Co., Phila.  
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Grand Rapids, Mich.  
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E. W. A. Rowles.....Chicago  
Beckley-Cardy Mfg. Co.....Chicago  
Peter & Volz.....Arlington Hts., Ill.  
L. A. Murray & Co., Kilbourn, Wis.  
Garden City Educational Co.....  
Chicago  
Keystone Book Co.....Chicago

**GLOBES.**  
Peckham, Little & Co., New York  
American Seating Co.....Chicago  
McConnell Sch. Sup. Co.....Phila.  
Haney School Furniture Co.....  
Grand Rapids, Mich.  
Columbia School Supply Co.....  
Indianapolis, Ind.  
E. W. A. Rowles.....Chicago  
A. J. Nystrom & Co.....Chicago  
Beckley-Cardy Mfg. Co.....Chicago  
L. A. Murray & Co., Kilbourn, Wis.  
Keystone Book Co.....Chicago

**GYMNASIUM APPARATUS.**  
Fred Medart Mfg. Co.....St. Louis  
W. S. Tothill.....Chicago  
A. G. Spalding & Bros.....  
Chicopee, Mass.

**HEATING AND VENTILATION.**  
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Lewis & Kitchen.....Chicago  
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Barbour Tablet Ink Co.....  
Evansville, Ind.

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U. S. Inkwell Co., Evansville, Ind.  
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**JANITORS' SUPPLIES.**  
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Indianapolis, Ind.  
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Economy Drawing Table Co.....  
Toledo, O.  
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Grand Rapids, Mich.  
Columbia School Supply Co.....  
Indianapolis, Ind.  
Kewaunee Mfg. Co.....Kewaunee, Wis.

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(See Projection Lanterns.)

**LATHES.**  
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Simmons Hdw. Co.....St. Louis  
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C. Christiansen.....Chicago  
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N. Y. Silicate Book Slate Co., N. Y.  
McConnell Sch. Sup. Co.....Phila.  
Haney School Furniture Co.....  
Grand Rapids, Mich.  
Columbia School Supply Co.....  
Indianapolis, Ind.  
E. W. A. Rowles.....Chicago  
Good Products Co.....Chicago  
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Co.....Chicago  
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Beckley-Cardy Mfg. Co., Chicago  
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Isaac Pitman & Sons.....New York City  
The Prang Company.....New York, Chicago, Boston  
Scott, Foresman & Co.....Chicago, New York  
Silver, Burdett & Co.....Boston, New York, Chicago  
Christopher Sower Co.....Philadelphia, Pa.  
Thompson Brown Co.....New York, Boston, Indianapolis

**RELIEF GLOBES AND MAPS.**  
McConnell Sch. Sup. Co.....Phila.

**SANITARY ENGINEERS.**  
Peck-Hammond Co.....Cincinnati  
Lewis & Kitchen.....Chicago

**SANITARY FIXTURES.**  
Keenan Structural Slate Co.....  
Bangor, Pa.  
Main-Bangor Slate Co., Bangor, Pa.  
Penna. Struct. Slate Co., Worth  
Bldg.....Easton, Pa.  
Omega Slate Company.....  
Bangor, Pa.  
Peck-Hammond Co., Cincinnati, O.  
L. Wolff Mfg. Co.....Chicago  
Jas. B. Clow & Sons.....Chicago  
Lewis & Kitchen.....Chicago  
Rundle-Spence Mfg. Co., Milwaukee  
N. O. Nelson Mfg. Co., St. Louis  
M. H. Foundry & Mfg. Co.....  
Belleville, Ill.

**SCHOOL BLANKS.**  
Peckham, Little & Co., New York  
American Seating Co.....Chicago  
McConnell Sch. Sup. Co.....Phila.  
E. W. A. Rowles.....Chicago  
A. J. Nystrom & Co.....Chicago

**SCHOOL FURNITURE.**  
(See Desks and Auditorium Seating.)

**SCHOOL SUPPLIES.**  
(See General School Supplies.)

**SEWAGE DISPOSAL.**  
N. O. Nelson Mfg. Co., St. Louis  
Lewis & Kitchen.....  
Chicago, Kansas City, Mo.  
Russell Sewage Disposal Co.....  
Burlington, Ia.

**STAGE EQUIPMENT.**  
Kansas City Scenic Co.....  
Kansas City, Mo.  
Sosman & Landis Co.....Chicago

**STATIONERY.**  
Columbia School Supply Co.....  
Indianapolis, Ind.  
Beckley-Cardy Mfg. Co., Chicago  
E. W. A. Rowles.....Chicago  
McConnell School Supply Co.....  
Philadelphia

**TALKING MACHINES.**  
Victor Talking Machine Co.....  
Camden, N. J.

**TOILET PAPER.**  
American Sanitary Products Co.....  
St. Paul, Minn.

**TYPEWRITERS.**  
Remington Typewriter Co., N. Y.

**VACUUM CLEANING SYSTEMS.**  
Spencer Turbine Cleaner Co.....  
Hartford, Conn.  
United Electric Co.....Canton, O.

**VISES.**  
Columbia School Supply Co.....  
Indianapolis, Ind.  
Oliver Machinery Co.....  
Grand Rapids, Mich.  
Richards-Wilcox Mfg. Co.....  
Aurora, Ill.  
C. Christiansen.....Chicago

**WALL DEAFENING.**  
Samuel Cabot.....Boston

**WATER COLOR PAINTS.**  
Milton-Bradley Co., Springfield, Mass.  
Am. Crayon Co.....Sandusky, O.  
Devoe, Dept. 5.....Chicago  
The Prang Co.....New York

**WINDOW SHADE ADJUSTERS.**  
C. I. Wimmer.....Columbus, O.  
R. R. Johnson.....Chicago  
H. B. Dodge & Co.....Chicago

**WOODWORKING MACHINERY.**  
Oliver Machinery Co.....  
Grand Rapids, Mich.  
Crescent Machine Co., Leetonia, O.





Fig. 565, List No. 66

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- Operate two programs on one circuit of bells;
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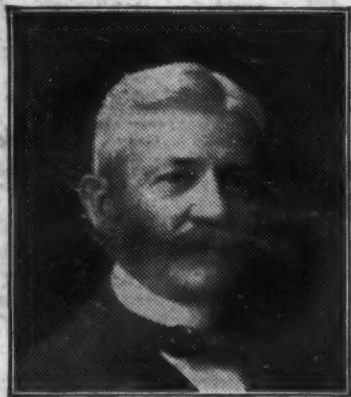
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